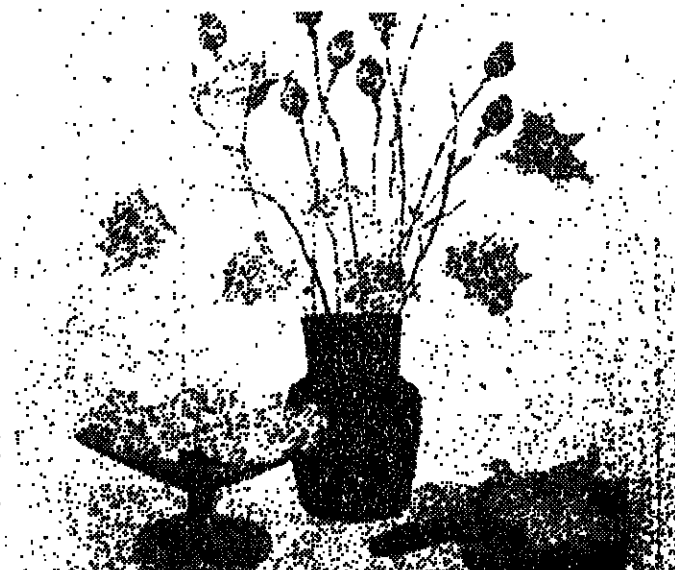


There are few contemporary Romanian painters who became so popular relatively early as Constantin Filidid. Born in Botosani in 1929, he studied at the Bucharest Fine Arts Institute with Alexandru Ciucureanu, one of the painters who created a real post-war school. In fact, today, in Romania, among various distinct directions, there is also a "Ciucureanu" trend, with highly original features. Of course, in the case of this artist, it is not a matter of simply imitating the master's style. Filidid learned Ciucureanu's lesson as well that he has allowed himself — in time — to be himself, to firmly impose his personality. He discovered himself slowly and serendipitously, at the end of an enormous work. In spite of the fact that popularity attended him from his first public events, those who know him well, those who have often passed the threshold of his studio know this: the indisputable talent of the artist is coupled with hard work, although each of his works seems to be the fruit of spontaneity. His paintings and drawings — recognizable at first sight — express his propensity for the figurative "betrayed" by the image of certain effects sprung from modernity. What strikes in his canvases is the lyrical, uncommon atmosphere, often balanced by a shade of drama. The cut of the landscape, his inclination towards nature, the psychological consideration of reality are major data characterizing the artist.

VLADIMIR UDRESCU ■
Reproductions after works by C. Filidid: "Crizan Coman" (top), "Tudor Arghezi" (top), "Red Flowers", "Landscape" (centre left), "Mill at Botosani" (centre right), "Self Portrait" (bottom left), "The Candelstick" (bottom right).



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ROMANIAN NEWS

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PEACE AND FRIENDSHIP ITINERARY IN AFRICA

THE OFFICIAL FRIENDLY VISITS OF PRESIDENT NICOLAE CEAUSESCU AND ELENA CEAUSESCU TO GUINEA AND MAURITANIA

President Nicolae Ceausescu of Romania together with Elena Ceausescu paid an official visit of friendship to the Republic of Guinea upon the invitation of Lansana Conte, Chairman of the National Committee for National Recovery, President of the Republic of Guinea.

Under the token of the mutual wish to enrich the collaboration between Romania and Guinea, presidents Nicolae Ceausescu and Lansana Conte had an exchange of views in connection with the development prospects of the relations between the two countries.

It was assessed that the already promotion of the Romanian-Guinean collaboration in the political, economic, technological, scientific, cultural and other domains was in the interests and to the benefit of the two countries and peoples, of the general cause of peace, international understanding and cooperation.

Presidents Nicolae Ceausescu and Lansana Conte instructed the members of the two delegations to analyze the ways to expand further the collaboration in keeping with the two countries' needs and development programs, requirements of economic and social progress of the Romanian and Guinean peoples, and that should also ensure fruitful collaboration on an international plane toward the settlement of the complex world issues.

In the Romanian-Guinean Joint Communiqué signed in Conakry by the two presidents, they reiterated the two countries' attachment to the obser-

(cont. on p. 2)



Nicolae Ceausescu, Romania's President, together with Elena Ceausescu paid between March 13 and 15 an official friendly visit to the Islamic Republic of Mauritania upon the invitation extended by Colonel Maawiya Ould Sid'Ahmed Taya, Chairman of the Military Committee for National Salvation, head of state.

The two heads of state exchanged opinions on the course of the Romanian-Mauritanian relations. In that context, the two presidents informed each other of the economic and socioeconomic development prospects of their two countries. It was pointed out that the current economic potential of Romania and Mauritania provided conditions for intensified economic relations and emphasis was placed on the possibilities of expanding mutually advantageous collaboration and cooperation.

The Joint Communiqué, signed by the two heads of state shows that the two sides reasserted the resolve to intensify the relations between the two states based on fully equal rights, observance of national independence and sovereignty, noninterference in the domestic affairs, mutual advantage and on the right to development, in keeping with the aspirations of their people.

The two heads of state also highly appreciated the fruitful collaboration established between Romania

(cont. on p. 3)

SCIENCE AND
LIFE
(PAGE 5)

HIGH PERFORMANCE
SHIPS
(PAGE 6)
A PLANT
OF GOOD HEALTH
(PAGE 9)

A BALANCED
ECONOMIC
GEOGRAPHY

ROMANIA IN THE WORLD • ROMANIA IN THE WORLD

ROMANIAN BUILDERS IN THE WORLD

Romanian construction-erection export began with the setting up in 1968 of the Romanian Construction-Erection Enterprise ARCOM. The activity of ARCOM is the export of designs and the execution abroad of industrial, civil, socio-cultural and administrative construction works, the erection of plant and technological equipment and the provision of technical assistance for the execution of these works.

From projects mainly of a civil and socio-administrative nature in West Germany, the enterprise's construction-erection export activity gradually expanded in that country, as well as to Austria, France and Czechoslovakia, to the Middle East — Iraq, Iran, Syria and Jordan, and to Africa — Libya, Sudan, Egypt, Algeria and Nigeria.

Industrial construction and erection gradually acquired a more significant place in Romanian construction-erection export. The export of Romanian plant and technological equipment was facilitated by the signing, together with other Romanian foreign trade enterprises such as Unimeximport, Industrialexportimport, Mecanoxportimport and Romenergo, of contracts for the turnkey delivery of important industrial projects.

Consequently, along the years, the Romanian builders and erectors have left ARCOM's signature on the cement factories of Um-Qasr, Al-Qaim and Sindar in Iran, that of Sheik Said in Syria and the one now being raised at Assut, Egypt, the big refinery of Banias, Syria, the modern slaughterhouse in Baghdad, the cotton spinning mill in Khartoum, Sudan, the 46,000 t grain silo in Misurata, Libya, the pipelines of the Dunkirk refinery, France, the thermopower plant at Trebovlen, Czechoslovakia, and many other projects.

In parallel, the skillfulness of the Romanian builders wearing the ARCOM emblem on their overalls has become known also through the construction of many schools, stadiums, hospitals, theatres, cinema halls, residential districts in West Germany, Libya, Algeria, Yugoslavia, Czechoslovakia and Sudan (including the house of parliament in that country).

The continuous development of the Romanian export of construction-erection led to the necessity of reorganizing this activity by the end of 1981.

The creation of the Department for Overseas Construction in 1981 was aimed at better capitalizing the human and material potential existing in enterprises set up in foreign countries, the achievement of a qualitative and quantitative leap of the activity carried out on building sites erected in various states of the world.

The Department for Overseas Construction, presently subordinated to the Ministry of Industrial Construction, was assigned the task of coordinating the construction-erection and land improvement activity worldwide. In this way a unitary management was ensured of both ARCOM and ARCIF, directly subordinated to the Ministry of Industrial Construction, and of other enterprises responsible to ministries undertaking construction-erection activities abroad.

As a result, many contracts were signed. Three times more contracts were signed in the last six years than in the eleven previous ones. Also ARCOM has made its area of activity in a number of countries two times larger than in 1981.

ARCOM wants to broaden collaboration with partners of developed capitalist states in mutually advantageous conditions. Also it has in view to carry out in the best conditions, new works resulting from the governmental accords concluded with developing countries.

On the other hand, ARCOM grants special attention to carrying out in the best conditions, works concluded with COMECON member states, like those being the object of governmental conventions concluded with the Soviet Union for exploiting gas reserves in Soviet Turkmenia and for the Iron Ore Plant of Kirovograd, where ARCOM must execute an important volume of works with industrial character as well as apartment buildings.

Thanks to the multitude of

various works executed in conditions of special quality, the ARCOM firm is today a well known international contractor in the construction market in the Middle East, European and African countries. It presents its potential partner a wide range of services and is ready to negotiate new cooperation forms for works in the partners' countries or in third markets, in mutually advantageous conditions.

After 1981, the activity of ARCOM has seen a true re-evaluation and re-launching. The building, designing and technical assistance for foreign countries are carried out on the principles of economic-financial and currency self-administration and self-management principle. They have in view the contracting and execution of the con-

struction-erection works abroad on the basis of Romanian designs and outlook.

The materials, plant and equipment and the other necessary products for the execution of the works are provided especially by our country, with a view to continuously expanding the export of Romanian products.

Special attention has been paid to the enterprise's long-term activity and to the conclusion of new deals. Over the last six years, after intense testing activities, about 100 letters for projects totalling 5 billion lei were elaborated by ARCOM.

The fair of Dubai, Tripoli, Leipzig (spring edition) and Cairo where the Romanian products representing the main lines of the national economy were exhibited in three official pavilions opened the agenda of Romania's participation in the international fairs and exhibitions to be arranged in 1985.

Romania's presence in this year's international economic-commercial contests takes into consideration the important objective facing this country's foreign trade in the third year of the ongoing five-year plan period (1985-1990), which stipulate the further expansion of commercial exchanges, of industrial and production cooperation with other countries.

Later in 1985, Romania will take part in other traditional exhibitions events such as those of Milan, Brno, Budapest, Poznan, Algiers, Damascus, Leipzig (autumn edition), Salonika, Vienna, Zagreb, Plovdiv, s.o. This autumn, between October 15-23, Romania will be the host of a large-scale economic-commercial confrontation — the 14th edition of the Bucharest International Fair, an event in which many of Romania's commercial and trade partners are to participate.

The inauguration ceremony was attended by President Nicolae Ceausescu, Xuesi Mustafa, Minister of Economy and Trade, other officials, members of the diplomatic corps, representatives of foreign firms, specialists and businessmen visited the Romanian pavilion and praised the exhibits' quality and variety.

TROPHY AND DIPLOMA OF HONOUR

A recent telegram received from London describing the ceremony concluded by the award of important international distinctions — the Trophy for International Trade and the Diploma of Honour — to the Bucharest-based Dunrea foreign trade enterprise. It acknowledged the dynamism, promptness and competence proved by the Romanian organization in its relations with foreign trade partners — runs the telegram sent from London. The important distinction is awarded annually by the Spanish Edicion publishing house on the basis of recommendations made by firms from various countries on all continents. This is the second time the above-mentioned Romanian firm takes the important trophy for the promotion of international trade.

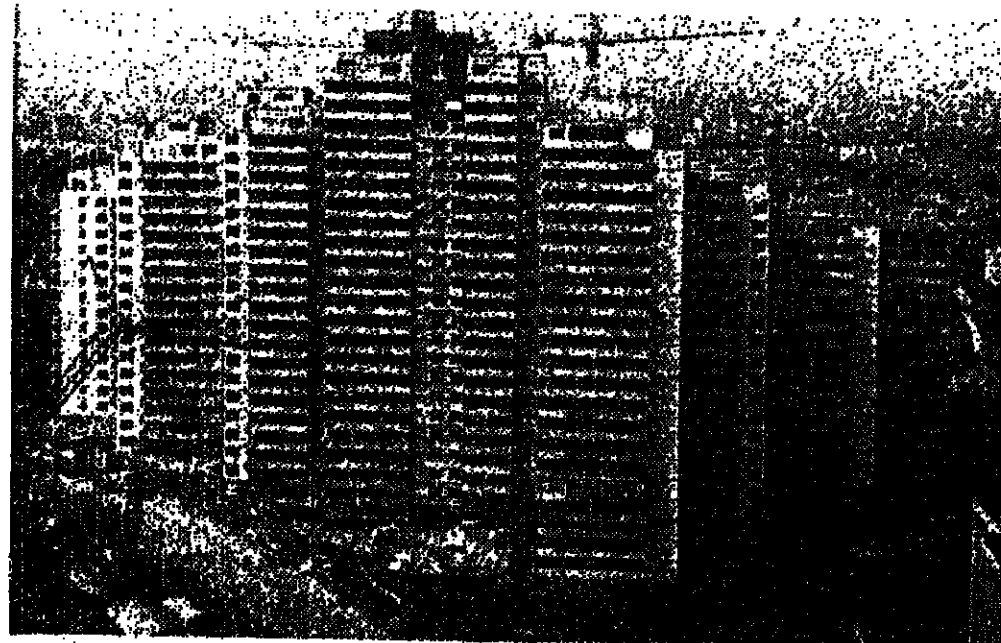
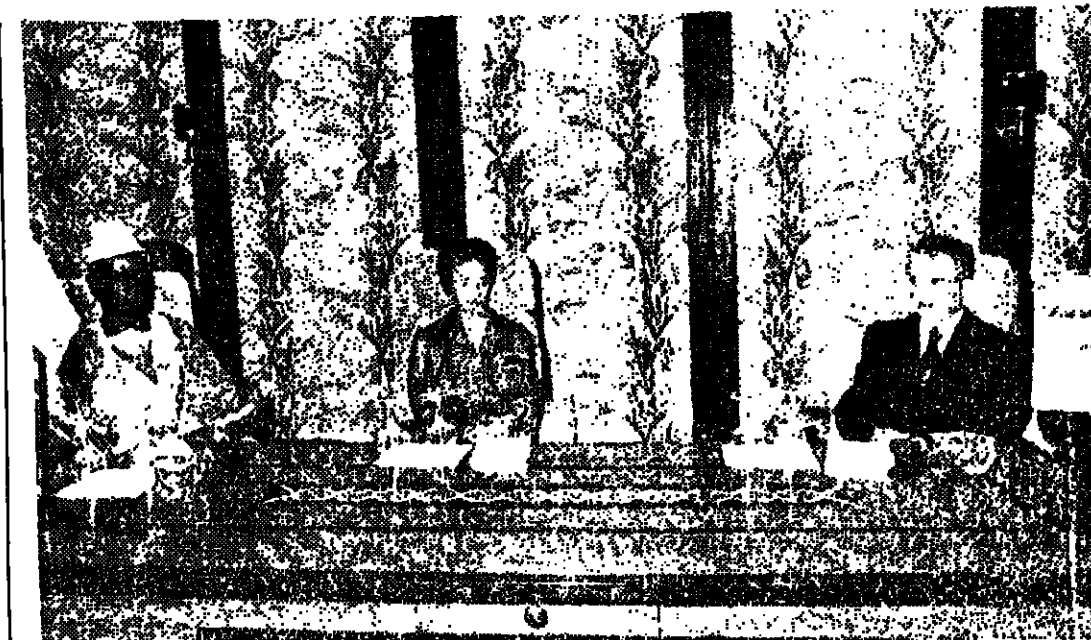
For their remarkable contribution to the development and diversification of world economic exchanges, to the expansion of bi- and multilateral collaboration on the economic and industrial plane, other Romanian foreign trade organizations won international awards, over the last years. Thus the Romanian ARCOM overseas construction-assembly enterprise is the holder of such distinctions — the International Promotion Prize and the Quality Trophy, awarded by the specialist Institute in Ge-

neva. It is an evidence of the good quality of enterprises, various economic units, etc. effected along the years in scores of countries including Algeria, Libya, Czechoslovakia, Austria, West Germany, Sudan, Syria, Kuwait, Iraq, Lebanon, etc.

The International Promotion Prize, as well as the Mueble Europa 1987 and the Diploma of Honour also belong to the Tehnoproexport firm which delivers ever larger quantities of various pieces of furniture and small furniture, on tons of markets in the world countries.

Other foreign trade and international economic cooperation Romanian enterprises have been awarded several international distinctions for the promotion of wide economic cooperation, for the quality of products made abroad, for the expansion of trade exchanges on a world level. Thus, for instance, the Contransex firm, whose field includes the execution of complex projects (port and airport, railway, road and bridge construction), as well as the export of installations, equipment used for such objectives, was awarded the Gold Mercury International Award. In its turn, other two firms, Mineralimportexport (which deals with the import and export of various mineral raw materials) and Universal Tractor (the export of tractors) were awarded the same medal. The Romanian firm Agroexport, Universal tractor, Prodexport, as well as the former foreign trade organization Chimproexport (the Danubiana of today) are the latest of some international awards such as the International Export Trophy set by the Editorial Offices in Madrid, Africa, International Trophy awarded by Africa magazine, the Food Europe prize 1981, the Gold Mercury respectively, that as association including world reputed specialists and businessmen, awarded etc.

Photos: Blocks of flats in Sachsenhäuser Berg district, Frankfurt, West Germany; construction of concrete piers in place, with rammed reinforced concrete wall, built for the DE-BA firm under a turnkey contract. Standard schools raised in Libya

PEACE AND FRIENDSHIP ITINERARY IN AFRICA
PRESIDENT NICOLAE CEAUSESCU AND ELENA CEAUSESCU'S OFFICIAL FRIENDLY VISITS IN GUINEA

(cont. from p. 1)

of respect in bilateral relations as well as in their relations with the United Nations of full equality of rights, national independence and sovereignty, territorial integrity, noninterference in domestic affairs and mutual advantage, nonrecourse to the use and threat of force, each people's right to develop freely and independently, as it wishes.

The President of the Socialist Republic of Romania and the President of the Republic of Guinea agreed on the need to intensify growth of commercial exchanges and deepening of economic cooperation in industry, mining, geology, transport, agriculture, silviculture and wood-working, fishery, health protection, culture and other areas of joint interest on the basis of long-term programmes which should insure stability and durability to them.

A protocol on the further development of the economic and technical cooperation and of the commercial exchanges between the Socialist Republic of Romania and the Republic of Guinea was signed during the visit.

On examining the international economic and political situation, President Nicolae Ceausescu and President Lansana Conté noted with satisfaction the identification of common points on the main problems facing contemporary world. They expressed their deep concern over the still dangerous situation of international developments and assessed that halting the arms race, a resolute passage to disarmament, nuclear risk factor, are fundamental in guaranteeing the vital right of every nation, of the whole mankind to existence, to freedom.

The President of the Socialist Republic of Romania and the President of the Republic of Guinea expressed their countries' solidarity with and support for the Namibian people's just fight for national independence, led by SWAPO, its sole legitimate representative, and condemned South Africa's schemes meant to perpetuate

Republic of Romania and the President of the Republic of Guinea speak most firmly for the complete elimination of nuclear weapons and are of the opinion that all the peoples of the world should work for the attainment of this goal on which their as well as the whole mankind's future depends.

Reviewing the situation in Africa, the President of the Socialist Republic of Romania and the President of the Republic of Guinea underscored the achievements of the African peoples in their fight for freedom and national independence, for economic and social growth, for a broader cooperation among them and a strengthened unity of political action on an African and international plane.

Euphonia was placed on the important role of the organization of African Unity in the consolidation of the cooperation among the African states, as well as on its contribution to the settlement of the problems facing the continent and to the promotion of a policy of international peace and cooperation.

Retelling their support to the fight of the peoples in Southern Africa to safeguard their national independence and sovereignty, the presidents of Romania and Guinea firmly condemned the odious apartheid regime that oppresses the majority population in South Africa and spoke for the establishment in that country of a democratic society, set on the equality of all races.

The presidents of Romania and Guinea reasserted their countries' solidarity with and support for the Namibian people's just fight for national independence, led by SWAPO, its sole legitimate representative, and condemned South Africa's schemes meant to perpetuate

Namibia's illegal occupation. Surveying the current situation in the Middle East, the presidents of the two states reiterated the republics' support to the peaceful population in the occupied Arab territories and solidarity with the just cause of the Palestinian people led by the Palestine Liberation Organization, its role legitimate representative.

The leaders of the two states spoke for stepped-up efforts towards a comprehensive, just and lasting peace in the area, being of the opinion that to attain these goals an international conference should be called as soon as possible under the auspices of the United Nations, the PLO, as the sole legitimate representative of the Palestinian people, in-

fact and the permanent members of the Security Council included.

Volting concern over the dangerous course of developments in the Gulf area, President Nicolae Ceausescu and President Lansana Conté declared for the withdrawal of all foreign military ships, the cessation of any attack and the guaranteeing of free navigation in the region, for an undelayed end to the hostilities between Iran and Iraq and a peaceful, negotiated solution to their problems.

Romania and Guinea favour the calling of an international conference at the United Nations Organization to be attended on an equal footing, by all the developing and developed countries to find viable solutions in order to globally settle undelayed development-related questions.

the foreign debt and high interest rate question included. President Nicolae Ceausescu and Lansana Conté underscored the importance of the non-aligned movement and its positive role in the resolution of the serious problems confronting the present-day world.

President Nicolae Ceausescu and President Lansana Conté valued their determination to intensify the cooperation between the Socialist Republic of Romania and the Republic of Guinea in the international arena, at the U.N. and its specialized agencies, the Group of 77 and the non-aligned movement to the end of enhancing their contribution to the settlement of the cardinal issues of the contemporary world, of promoting international peace, security and cooperation, as well as development.

The heads of the two states favoured the settlement of all disputes and differences between states only peacefully, by way of negotiations.

In the face of the deteriorating position of the world economy, of the developing economies more particularly, the two state leaders agreed that the resolution of the international economic problems, the eradication of underdevelopment called for a more just and equitable world economic order. They favoured an international conference under United Nations auspices to find global solutions to the underdevelopment problems, including the foreign debt and the very high interest rates.

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IN MAURITANIA

(cont. from p. 1)

and Mauritania in ocean fishing and decided to work for expanding and diversifying this collaboration in future, according to the understandings and orientations established together.

The presidents of Romania and Mauritania decided to work to enhance the commercial exchanges and to develop economic cooperation in the areas of industry, mining, agriculture, construction, transport and telecommunications as well as in other sectors of joint interest.

On the occasion of the visit the sides signed an aide-memoire regarding the further development of the economic and technological cooperation and the intensification of commercial exchanges, and the accord between the government of the Socialist Republic of Romania and the government of the Islamic Republic of Mauritania regarding the mutual promotion of and guarantees on investments.

During the talks a number of important aspects of the current international life were also approached. The international situation was shown to continue to be serious and complex and the need was underscored to settle conflicting issues by political means, through negotiations, which is the only rational solution whereby the peoples' efforts can be focused on progress on free and independent development without any outside interference.

The heads of the two states expressed their vivid concern over the arms race and its consequences for the state of development.

work along the path of attaining this goal.

The leaders of the two countries welcomed the signing of the treaty between the Soviet Union and the United States of America on the elimination of intermediate- and shorter-range missiles and considered that resolved action was required for the attainment of new accords along this line. Also stressed was the need for a considerable cut in conventional arms, troops and military spending. The sides expressed the wish that the third special session on disarmament to be held in May 1985, should reach concrete results.

The two state leaders expressed their hope that agreement would be reached at the all-European Conference on Security and Cooperation in Europe.

Retelling their support for the struggling people of Southern Africa, the President of the Socialist Republic of Romania

ity and Cooperation in Vienna for better relations and an improved cooperation among all European countries, to concrete confidence-building and disarmament measures. Furthermore, they were confident that the Balkans would become a zone of peace and cooperation.

Emphasizing the achievements of the African people in their struggle for national independence and liberty, for economic and social development, for growing cooperation among them and a closer unity of political action on African and world levels, the two state leaders underscored the positive role of the Organization of African Unity in strengthening the role of the organization in the contribution of the organization to the settlement of the problems confronting the continent.

Retelling their support for the struggling people of Southern Africa, the President of the Socialist Republic of Romania

and the President of the Islamic Republic of Mauritania resolutely condemned South Africa's acts of aggression against the front-line states in the area as well as the racist apartheid policies and the repressive measures of the Pretoria administration against the majority population of the country, more particularly the recent ban on the anti-apartheid democratic movements.

The presidents of the two states expressed their deep concern for the current situation in the Israeli-occupied Arab territories and agreed that a just and durable peace in the Middle East called for Israel's withdrawal from the occupied Arab land and the recognition of the Palestinian people's national rights, including its right to self-determination and independent statehood.

The two state leaders favour the calling of an international Middle East conference under

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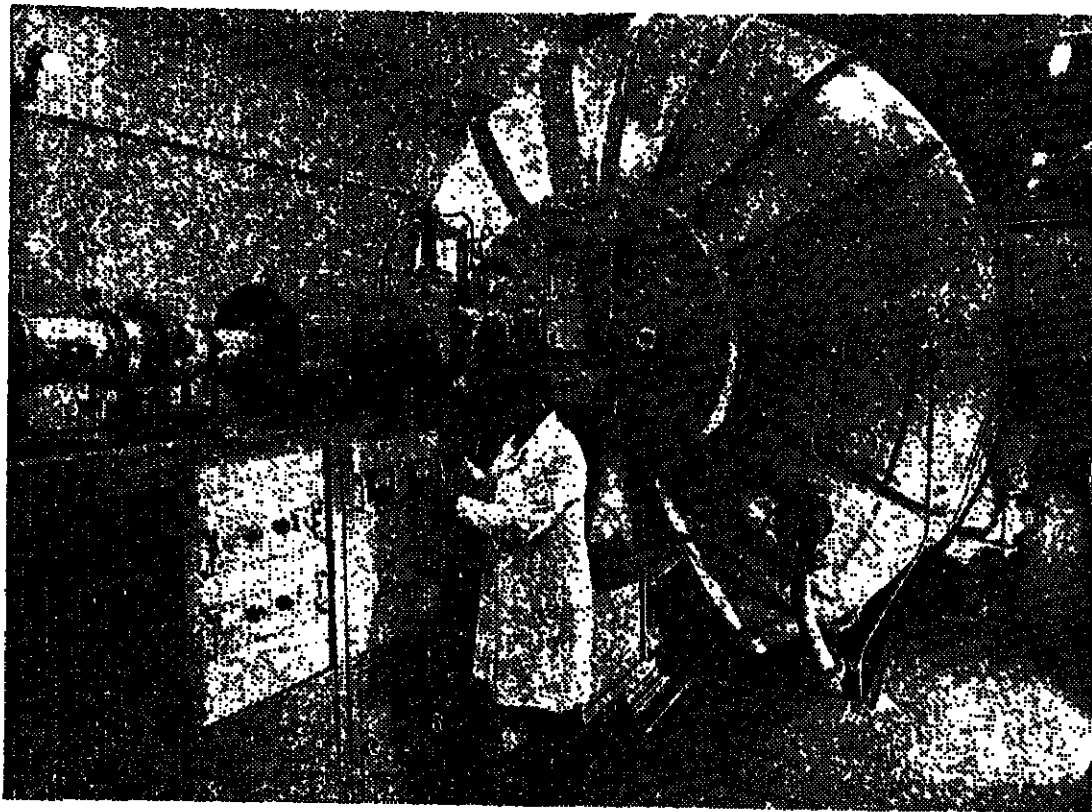
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SCIENCE AND LIFE

In 1988 Romanian science, fundamental and applicative research have to carry through important tasks as part of the economic programme and for the improvement of the living standard of Romanian society. The plan for the ongoing year

than nine million tons of conventional fuel; high standard products are to account for at least 80 per cent of the overall production in the conditions of increasing the rolled goods coefficient; chemistry and petrochemistry will have to en-

sure at least 70 per cent of white products in oil processing, the use of the most modern technology in the production of coal, gas, oil and wood, the development of the chemistry of fine synthesis and the use of the most advanced technology in the production of fertilizers, the production of medicines, plastics, resins, catalysts and other products of large utility and high value; the machine-building industry will produce a new type of aircraft and helicopters, farm machines and means of transport, increasing the productivity of labor through the application of new technologies; the electrical engineering industry, backed by the most advanced scientific research, will register a growth rate of 10-15 per cent, superior to that scored by industry as a whole; scientific research will contribute decisively to bringing into operation new power plants, stepping up the development of the most advanced applications of physics in the production of machines of the national economy.

In conclusion, on the basis of present-day scientific and technical progress, the improvement of the economic organisation and upgrading of the production process will require more than 48 per cent of the industrial activity will be renewed. Practically the whole front of research connected to the solution of tasks concerning the economy, as well as to fundamental research in mathematics, physics, biology, to researches made as part of technical science, economic and sociopolitical, the research dedicated to the people's health, to the protection of the environment and to the general improvement of the life quality, operates on the basis of a programme worked out

disputates the conclusion of the second stage of programmes concerning the betterment of production, organization and modernization.

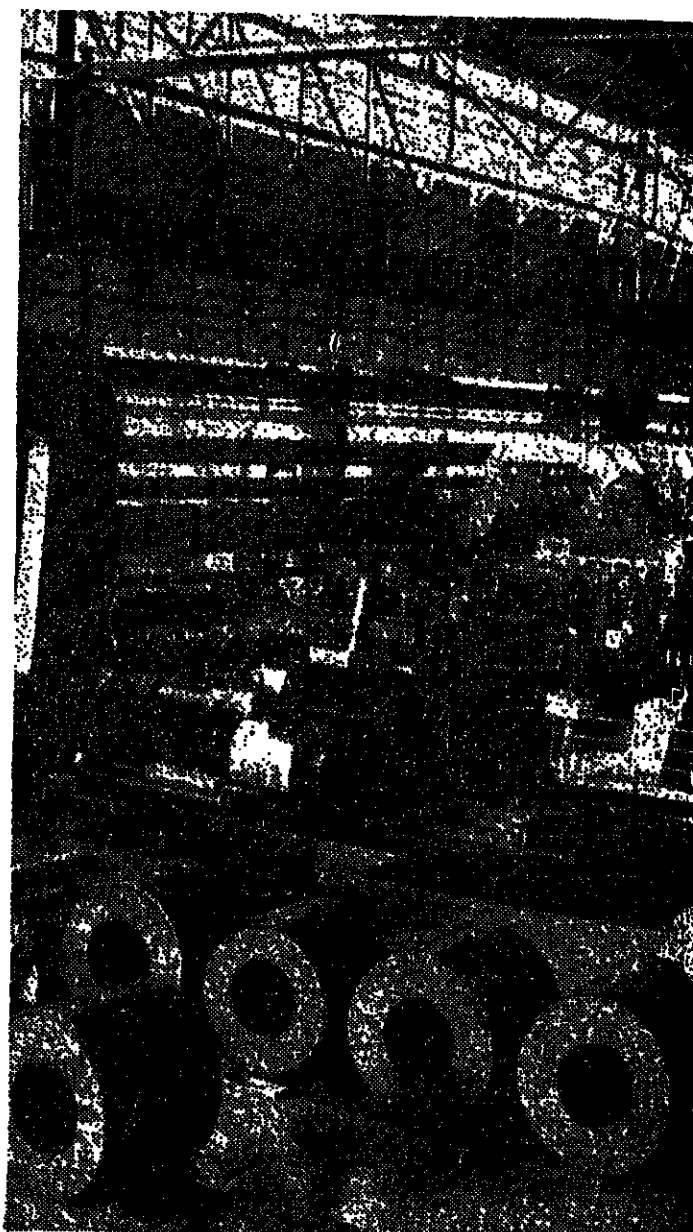
The efforts of scientific research and development of the oil directly linked with the development of the oil industry are to be focused on the following essential directions: the increase in the reserves of oil, coal, gas and non-metallic mineral substances; the perspectives, the introduction of new technologies helping production, the targeted output of pit-coal, lignite, oil, gas, oil concentrates and others, the oil and gas industry is to lay stress on increasing the oil output by means of the scientific ensuring a final profitability of the new oilfields will be promoted to ensure a good functioning in the grid in conditions of maximum efficiency and at the same time capitalizing on all the (latent) resources of energy, to save fuels, to expand the fields being now and recoverable resources of energy equalizing more

Photo: Views from the labs of the National Physics Institute (top and bottom) and from a processing hall at the Orla-Inox plant in Turroville.

HIGHLY RESISTANT LOW-ALLOYED STEEL

This is the dream of any steel producer. The above title is in fact the name of an invention by a group of specialists from the Research, Technological Engineering and Design Institute for Hot Steels in Bucharest. This purpose of the article is to describe how a material necessary in producing grooved anvils—moulds—can be more easily transported, or a difficult, low productivity and therefore expensive technology was applied. A solution had to be found in that field, where there was a constant demand, raising the question of material consumption and obviously, cost.

In fact the total economic effect is of 90.4 million lei yearly, in which 26.8 millions result from the reduction of material consumption, 27.6 from the investment in new manufacturing economies — 2.8 million lei, etc. This invention has attracted all economic units owing forging installations.



beforehand and from an all-embracing perspective, in the race for acquiring more knowledge and for finding new solutions to the complex problems raised by the country's development and by world trends.

ANDREI PETRESCU ■

INDUSTRIAL HOLOGRAPHY

The centre of holography research at Polystein Institute in Bucharest designed and worked a holographic interferometry assembling, a device which allows of an analysis of the mechanical and thermal behaviour of photovoltaic cell apparatus and instruments. The experiments done by the institute raised a new possibilities of improving the performances of some apparatus built on principles relying on this phenomenon.

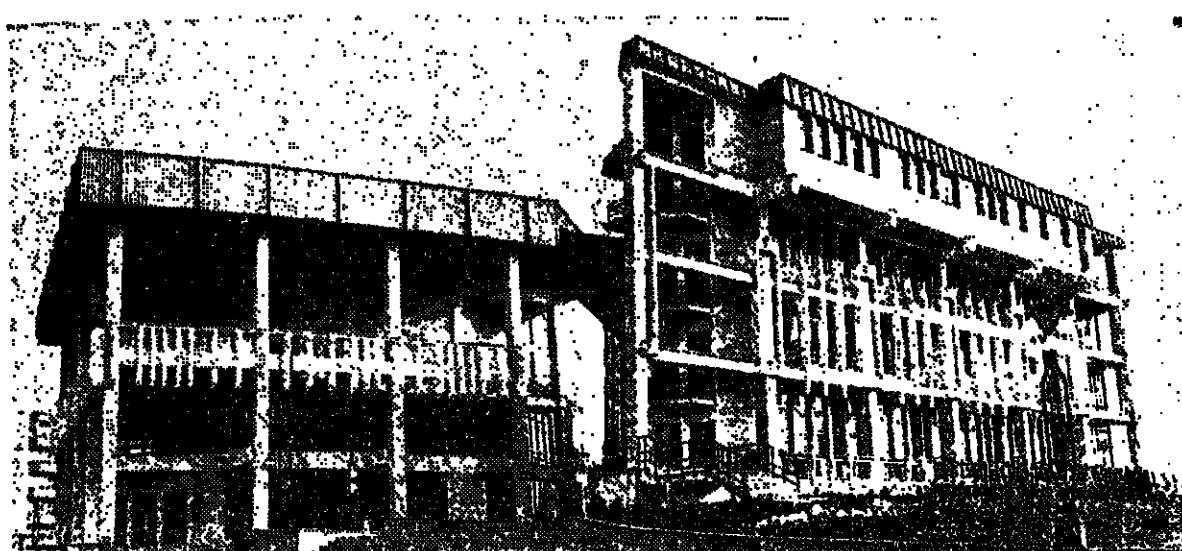
By holographic interferometry, the Polystein Institute in Bucharest, Polystein Institute have been able to elaborate industrial methods controlling the quality of a number of our basic mechanical covers, dampers, welding plates. The holographic methods devised here have been successfully used for the analysis of thermal deformations in the parts of different engine assemblies, in the technical components.

Double exposure plates and holographic interferometry have been used in many ways to determine the width of channels, the pressure of the fluids.

LUDOVIC ROMAN

LUDOVIC BORN

ROMANIAN NEWS • ROMANIAN NEWS • ROMANIAN NEWS



A NAME COMES INTO FASHION

In the last 20 years, 40,000 new apartments have been built in Bala Mare. The new districts have their own urban facilities — shopping centres, schools, polyclinics, cinema halls. Photo: the House of Culture, Science and Technology for Youth in Traian district.

The Electrolimits
plant of Timișoara continues to apply an ample programme of modernization. Standing out among the recently assimilated technologies are the procedures using nonconventional methods, multipurpose assemblies and subassemblies, gear manufacturing lines, hydromechanical parts, axes, joints and collars, welding, electrical, technical winding and precision mechanics equipment. A factory has been partially commissioned for the purpose of manufacturing cutting machines by electroerosion, industrial robots, other highly productive machine tools.

A name of a sheep skin has entered fashion collections — Napulim. Obtained through an original technology, the napulim is the result of the development of the specialists working with the 1st Mai fur enterprise of Oradea. It is a material of great elegance and brilliant, carrying the same note of good quality and smartness specific for the fur, which has won an international name for the enterprise, under the form of various fur garments, introduced during the cold season. At the same time Napulim has a functional character, being able to protect the body from the cold. The new models of clothes and jackets made of Napulim, directed to the specialists, artists or even to the general public, cover a very extensive and wide range of beautiful, modern, easy-fitting garments, meeting the most exigent

After surveying the fur collection, engineer Constantin Orlov, director of the 1 Mai enterprise showed us the agenda of world model exhibitions to be attended by his collective. For documentation and prospecting, the

The fact that products bearing Oradea's trade mark are yearly sold by Great


Britain, Belgium, Canada, West Germany, the USA, the Soviet Union can be explained not only by the continuously updated designs, but also through their irreproachable quality.

ADINA PRISTAVU

PERIODONTOSIS-FIGHTING VACCINE

Recently, a new hypothesis concerning the pathogenesis of chronic marginal periodontitis has been advanced. There is a new orientation concerning the treatment of this disease through staphylococcal vaccine therapy has appeared. The conclusions are the fruit of the collaboration between the Department of Periodontology of the "Cantacuzino" Microbiology Institute and the Municipal Hospital in Bucharest. The hypothesis, just like the idea of applying a new treatment, is the result of the joint efforts of the two colleagues working in Bucharest. Our photo shows Dr. Tudor Georgescu presenting the vias with staphylococcal immunization to the members of the Department of Periodontology, University of Medicine and Pharmacy, in Bucharest, during the 1978 Congress of the European Association of Periodontology.



 In recent years, the Romanian economy has pursued the capitalization of low-grade ores. In Maramureș, an area boasting a long tradition in the extraction of non-ferrous ores, new deposits have been approached. Photo: Ore flotation at Bala Sprie.

10 KILOMETRES =
30 GRAMS

A ten-kilometer-long yarn weighs 30 grams. The weighing was done in Vaslui town, at the Moldosin synthetic yarn plant. Besides their reduced weight, the yarns produced here are also characterized by fineness and resistance.

Made in a wide assortment (about 100 types), the Moldosin yarns are exported to 30 countries in Europe, Asia, America and Africa. They are the ideal raw material for the producers of fine fabrics, technical yarns, clothing and footwear.

The outstanding success of the enterprise — as director engineer Mircea Ciobanu stated — is due to the latest technical equipment and the high training of the personnel. When spinning installations, for instance, reach speeds of up to 10,000 rotations per minute, it is no wonder that Moldovan produces 220 million km of yarn annually.

THREE MILLION ITEMS A DAY

Three million items are actually produced at "Electrofrezing" Enterprise in Sverdlovsk province. In fact, a range of products is extremely varied: from mechanical equipment and fine mechanics goods to motor-cars, electric motors and appliances of large dimensions. A total of 340 main products is included in the standard assortment of the enterprise. The products are of many different variants.

The undeniable advantage of such a situation is the possibility of the enterprise to any evolution of technology.

specialized on groups of products. Each new product was discussed not only with the technologists but also with those preparing production and those who will produce them effectively. We're always looking for simple things. Anyway, it is more advantageous to design twice than to series produce after a design insufficiently elaborated.

The fact that products of "Electroprecizia" Skale are superior to the others and that they are not their competitors' variants is proved by the facts that the enterprise owns 11 of the invention patents. In 1987 it has 11 inventions and 11 innovations, all applicable to the enterprise's activity, were presented for registration.

Mention should be made that out of 105 parts of a new product, over 64 percent are already series produced.

ERGONOMICAL DESIGN

One could roll between one's fingers a cigarette made of a piece of sheet turned out at the aluminum processing plant in Slatina as easily as if it were made of thin paper. The quality of the Slatina aluminum sheet is not barely its uniformity and thickness accuracy. Turned out here is rolled metal with the purity of 99.997 per cent, in keeping with a technology devised by the Central Chemistry Institute in Bucharest.

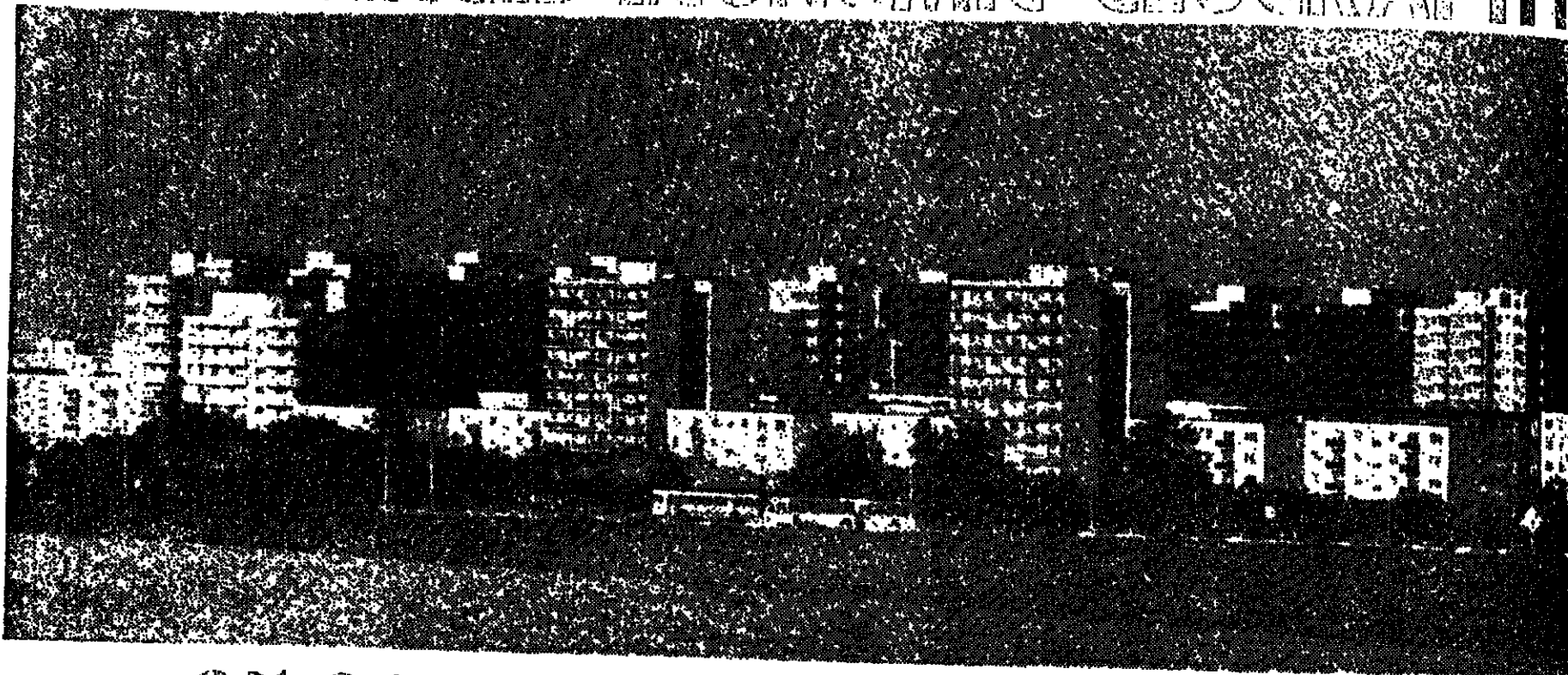
The generalization of computer use in planning, managing and allocating the production of energy compounds is a considerable consumption per ton of product.

ERGONOMICAL DESIGN

The direct-current drives lathes built at SAIGO works in Tirogovici have for many years now revealed their advantages. The new types, manufactured in the design workshops of the enterprise, and then mass produced, stand out through their world-level performance. They are conceived in a superior ergonomical design.



A BALANCED ECONOMIC GEOGRAPHY



65,000 JOBS

Suceava is a symbolic name for the Romanian medieval history. For nearly 200 years Suceava was Moldavia's capital. The history of the town which for a long time checked the invaders' attacks is closely intertwined with the country's history.

It is quite difficult to name the exact moment when the settlement on the bank of the Suceava river turned into a town. Archaeologists found that around 1300 the settlement boasted a defense system with ditches and a palisade. The urbanization process seems to have been very fast. One century later, the town lying on the road of European commercial importance linking the Baltic to the port towns on the Danube's mouth and the Black Sea focused the economic activity of a vast area. It is no wonder that meanwhile it had been reinforced with thick stone walls. Just like all major European centres, the town of Suceava is, rather late, dating back to 1383 (therefore exactly 500 years back), when Moldavia's ruler Petru I. Mușat wrote a letter to Polish

King Ladislaus Jagiello from that city. The letter contained the Moldavian ruler's agreement to lend his neighbour a large sum of money (the equivalent of 25 kg of fine gold), which evidenced Moldavia's great economic force.

Under Stephen the Great (1457-1504), the walls of the city were further enlarged, the Prince's Court was rebuilt, new monumental stone constructions were raised. In 1576 the city stood up to Mohammed II, Constantinople's conqueror. The heroic resistance put up then and later made the town a symbol of the struggle for independence.

The remarkable medieval city was to become just a modest provincial town in modern times. In 1918, when the main production means were nationalized, the list of industrial units in Suceava was quite meagre: two windmills, a sawmill and sawmills factory, an oil factory, two tanning houses, an electric plant, a slaughter house.

A picture of those days, preserved as a memento in mayor Mihail Gîmariu's office shows

the old township with small shops crammed into each other, with eaten up walls, among which the monuments of history stood up dimly.

The places are hard to identify today. In the years of socialist construction, Suceava has



There are 14 territorial dispensaries, 15 enterprise dispensaries, a 1,400-bed hospital in Suceava municipality. Medical assistance — free for all — is provided by 380 doctors and 918 medium-trained medical staff. Last year health care was allotted over 114 million lei from the state fund, 25 million of which for medicine.

In this context, the evolution of the population's health condition indicators has seen a permanently favourable dynamics: last year the birth rate stood at 18.5 per thousand, with the natural population growth being of 14 per thousand, which ensured the youth and vigour of the town's population.

A MODERN TOWN CARING FOR ITS HISTORY

Lying in the floodplain of the Suceava, but also on the surrounding hills, the town benefits by a picturesque, varied environment. Adding to this was the architectural harmony of numerous buildings.

The indisputable advantage of having such an urbanistic dowry has been turned to best account by the city fathers of today who have thought the town's forms and sizes.

On the one hand, they protected and reinforced an impressive past: the old medieval monuments while also creating architectural complexes likely to get the advantage of the old art. On the other hand, they permanently pursued the growth of the urban complex provided by Suceava to its inhabitants. Spatially, the town is built on the hills, the modern buildings and the medieval monuments are in a permanent dialogue with the old town.

nearly explosive growth of the town was engineer Ghedeon Jacob, first deputy chairman of the municipal people's council. "While around the year 1918 the town had about 8,000 people, in five centuries its population grew by barely 5,000. At present, the town has 100,000 inhabitants. This economic and demographic growth posed special problems. In parallel with the construction of the large industrial zone of housing and public buildings, as well as schools, hospitals, sports grounds, etc., had to be raised in a relatively short interval. Housing complexes, schools, kindergartens, etc., had to be built in a very short time. The town's growth was not only a quantitative one, but also a qualitative one. The modern buildings and the medieval monuments are in a permanent dialogue with the old town.

"Unanimously assessed as a successful architectural solution is the opening towards the surrounding nature of the town's main square. Ana Ipătescu boulevard too, with its high rises placed at junctions and its open spaces has a specific personality.

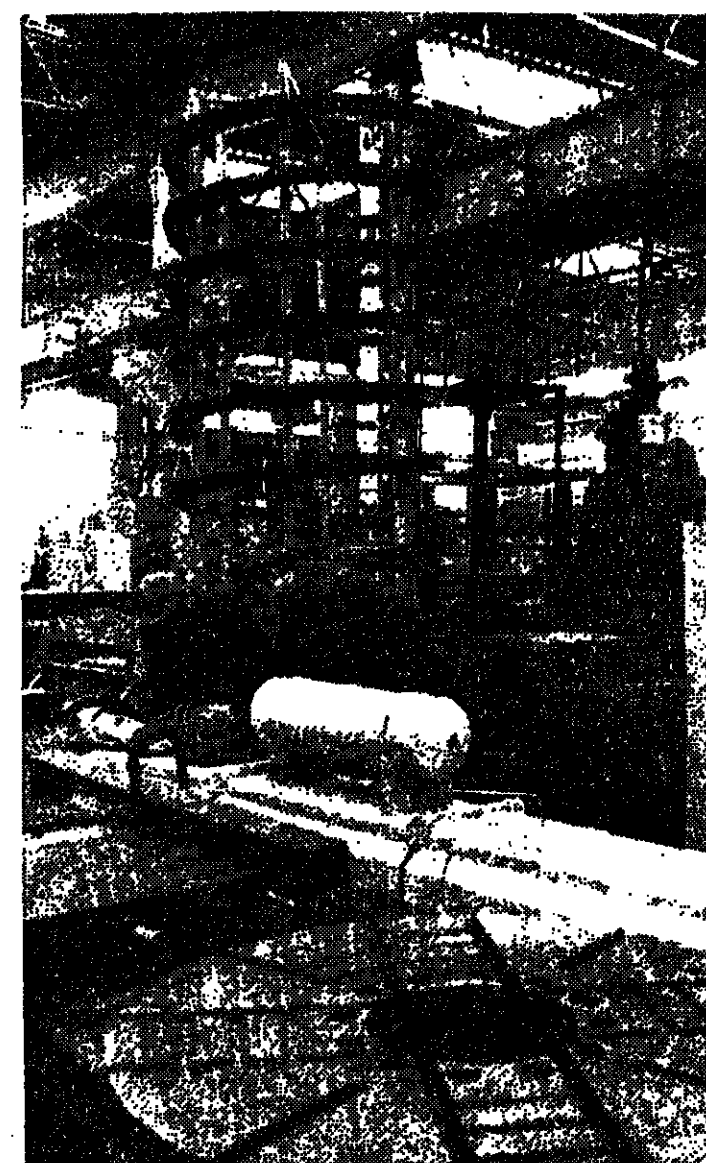
"Suceava today is an entirely new town, as more than 80 per cent of its inhabitants live in housing units built in the last 10 years.

"The town's new districts, adequately equipped from a social, administrative and cultural point of view, have determined a sensible growth of urban

comfort, a decisive factor in the rising quality of life.

"Numerous socio-cultural edifices, such as the House of Culture, Bucovina supermarket, Arcus and Bucovina hotels, the county hospital, the astronomical observatory, the technological engineers institute, the municipal theatre and others attest the endeavours to place the town's contemporary architecture in a continuous line with the local tradition.

"Looked at from above, when the plans describe an arc in order to enter the landing direction, the town seems to be pulverized in the middle of a huge park."



THE FUTURE ON THE DRAWING BOARD

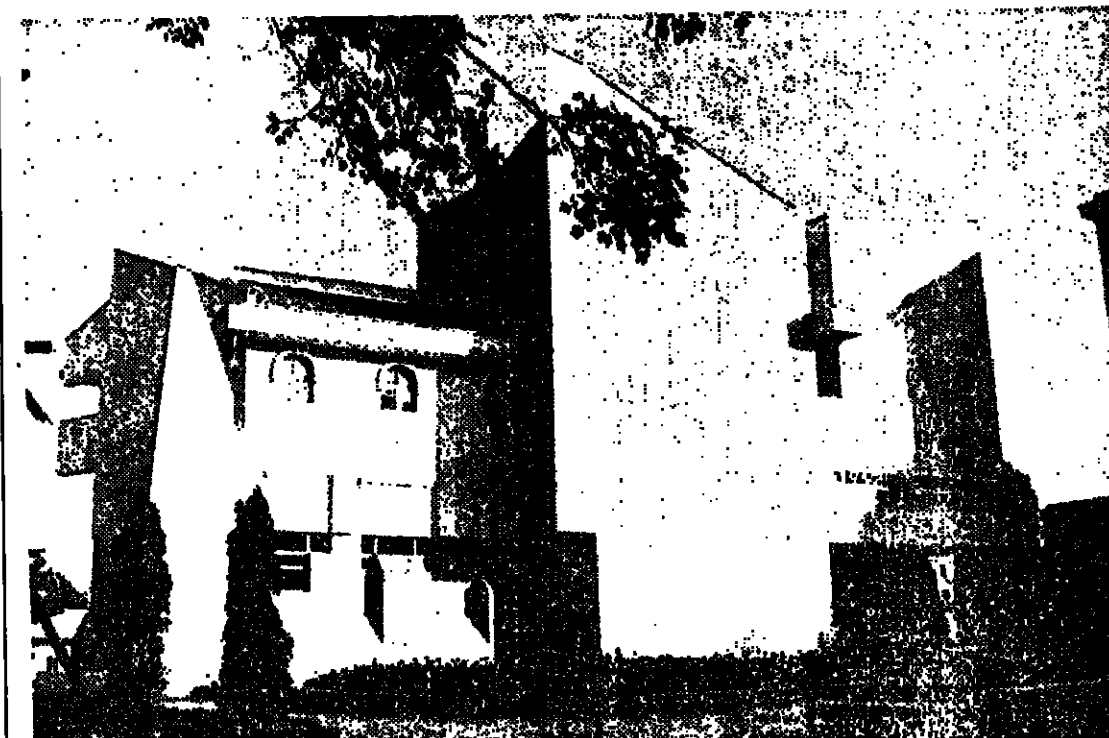
Under construction on George Enescu boulevard is a ten-story block of flats which will become the head building of this new thoroughfare. About to be completed are also the last blocks on Unirii road, in Cuza Vodă district. This finishes the town's gate from Botoșani. Soon, the Burduseni district will be partly rebuilt. On the designers' boards, the sketches of the first 3,000 flats are ready.

In 1988-1990, more than 4,500 apartments as well as other socio-cultural establishments, technical urban facilities, shops, etc., are to be commissioned.

In 1990, the town's population is estimated to reach 118,000 inhabitants. Some 5,000 new jobs are to be opened. In the ongoing five-year plan period, investments worth 7.5 billion lei are to be made, 3.5 billion of which being for construction-essentially.

In the realm of economic development too, the designers have finished ambitious drafts. Thus, a new 50-MW unit and 30 km of power line, a heating plant are to be commissioned at the electric power enterprise in the next few years. At the bearing enterprise, a second unit turning out 20,000 million bearings a year is to be completed. A section of anti-corrosive protection for car parts is to be built in the pulp and paper works.

The garments enterprise, the wool plant, the wood working plant and knitwear enterprise are to be modernized.



CULTURAL COORDINATES

"The people in Suceava produce and live culture as naturally as they breathe" somebody noted a few years ago, delighted by the beauty of the town and by its cultural climate. A century of old cultural tradition, Suceava is today widely open to creation.

The Simion Florea Marian memorial fund preserves an impressive reference material left by the well-known scholar and folklorist researcher in Bucovina. The History Museum, the Ilan Domestice ethnography department, the fine arts department, the Suceava county library also house inestimable values. The visitors can admire archaeological relics and material proofs on the age of the town, among other things.

Through the specialist institutions and specific stimulating activities, Suceava offers today a wide range of opportunities for the assertion of art in its multiple ways of manifestation. Numerous specialists of high professional competence, researchers, poets, fine artists and musicians live and work here. In Suceava there is a Circle of the Union of Writers which exists monthly, in collaboration with the last magazine Convorbiri literare, the publication Pagini bucovinene (Bucovina Pages), as well as a circle of the Union of Fine Artists which gathers over 20 painters, graphic artists and sculptors.

The Art Galleries and the Mihai Eminescu Book House are to beauty lovers beneficial spaces for hosting exhibitions or putting out new books.

The modern House of Culture, the Astronomical Observatory, the branches of some prestigious scientific societies, the Higher Education Institute are also ways of concentrating the cul-

tural activities of the Suceava people. Since 1983, a troupe of actors has been performing as part of the Suceava Municipal Theatre, a section of the National Theatre in Iași.

The cultural life of the town at the same time marked every year by some prestigious events, which have acquired a national character: the Ciprian

Porumbescu Contest of Instrumental Interpretation, carrying the Gold Lyre, a competition for children, the Voronețu Fine Arts Festival-Competition or the National Poetry Competition, a showcase of young talent up to 15 years old.

In order to round off this brief sketch of the multifaceted cultural life in Suceava,

FASHION DESIGNERS FOR THE NEXT YEAR

In 1985 forecasts indicated a surplus of labour force, especially female, in Suceava county, for the next decade. This was the decisive factor in allotting investment funds for the building of a knitwear enterprise here. The Zimbru enterprise started producing 30 years ago. Today about 7,500 people work at Zimbru.

The majority are women who have not only found working places, but also a convenient training, even a high training. As the young women especially, graduates of the industrial high schools, have been able to distinguish themselves professionally; attend vocational schools and even faculties.

Engineer Traian Domine, a supervising director since 1975 (thinks that the difficult tasks in the making of the enterprise have been performed by these young ambitious and hard-working girls, who not only knew how to learn to work at the newest knitting machines of that time, but they also knew how to make the products more beautiful and useful. The knitwear — which holds the largest share in the Zimbru enterprise's production — is appreciated and demanded by great companies in the world, such as Stratford and Mast in the USA, Feig in West Germany or Carrel in France. They are firms which launch the fashion and whose permanent suppliers steadily include the Suceava enterprise. Therefore, in the great stores in the USA, USSR, Netherlands, West Germany, England, France, Italy, Sweden, Austria, Switzerland, Canada etc. one can confidently buy the products bearing the Zimbru — Made in Romania tag.

In order to keep up with the rapidly changing tastes of the customers, the enterprise completely changes its models during the same year. The collection of the firm includes over 3,000 items per year, coming in about 100 colour versions each. Now, its creation workshops are working on the models for 1989.

let us mention that it organizes or hosts periodically scientific sessions on a wide range of subjects, creation camps, colloquia and meetings in various fields of activity.

Pages written by G. OSTROVIANU and ION BELDEANU

Photos on pages 6 and 7: View of the town of Suceava (top left). The new blocks of flats are significant for the dynamics of housing construction in this town: 1,400 flats built in 1987 alone. The town has been allotted large investment funds for industry: an equipment and spare parts manufacturing plant (pages 6 and 7 middle), a large power plant, an artificial fibre and yarn factory, etc. have been built here. The new shops (page 6 bottom), again in 1987 alone. New shopping and service centres, stores, restaurants, etc. have been built in the Cuza Vodă District. Suceava is a modern town, a town of the future. The multifaceted cultural life of the town.



CAN CLASSICAL PHYSICS BE UPSET?

Years ago, when he was not yet a doctor of science, professor Sorin Comorosan, a biophysicist of excellence, advanced an idea of brilliant common sense and simplicity: the phenomena occurring in the living world are so subtle that man-made apparatus cannot detect them, let alone measure them; in order to record the dynamic processes of the living world, which would be measured in angstroms, picoseconds and microvolts, we need living systems, living apparatus, the only ones capable of hearing the living world's heartbeat.

The professor imagined and built these apparatus.

THE EFFECT AND THE ANTIEFFECT

Another exceptional step: an amazing experiment which demonstrates that the reaction of turning the substrate of an enzyme into another product with the aid of a catalyst — another enzyme — is influenced by the green light having a wavelength of 538 nanometers. But the reaction is not influenced by accidental green light irradiations: it is only the irradiation of the substrate in multiples of five seconds that absolutely amazingly causes an acceleration of

the transformation of the reactive mixture into a final product — and this is precisely the Comorosan Effect!

...Five seconds, multiples of five seconds, sequences of multiples of five seconds have therefore influenced an organic phenomenon — a phenomenon just outside the living world — and have continued to manifest themselves in tens, hundreds and thousands of tests, in Romanian and foreign laboratories, scores of physics, biophysics and

biochemistry magazines subsequently reporting the confirmation of that stunning phenomenon.

The second set of experiments (probably coming after the first few scores of thousands...) consisted in the intersection of the green light beam that was acting upon the substrate (realizing the Comorosan effect) with a secondary green light beam perpendicular to the former.

The result: while the intervention of the second beam in accidental (time does not alter the situation in the least, the irradiation in specific time, also a multiple of five seconds, neutralizes the Comorosan effect! Although any physicist could tell you that nothing, absolutely nothing must happen when two light beams "collide", exactly as in the case of the collision of the two galaxies in the Coma Berenices constellation (the distance between photons, very much as those between stars, are gigantic compared to their specific dimensions, and the probability of their collision is extremely small...)



THE PHYTOSYSTEM

Physics seems to have been upset by the Comorosan effect, physicists and biologists all over the world have thought. Especially the physics of the living world seems no longer to be satisfied with old canons... A new physics is looming ahead, ready to attack! Therefore laboratory researchers have gone into offensive, performing thousands of exotic experiments.

Professor Comorosan's team departed from the established line and took one step forward... The classical vat containing the substrate and the enzyme was abandoned; but not the radiation with the 538 nanometer wavelength — this particular wavelength probably holds a part of the secret of the Comorosan effect. The step forward was naturally taken from the organic to the living, that is, to wheat. Wheat seeds of rigorously checked genetic purity were chosen (the Moldavia elite variety), equal in point of size and weight; after moistening, they were laid by hundreds in Petri boxes arranged in concentric

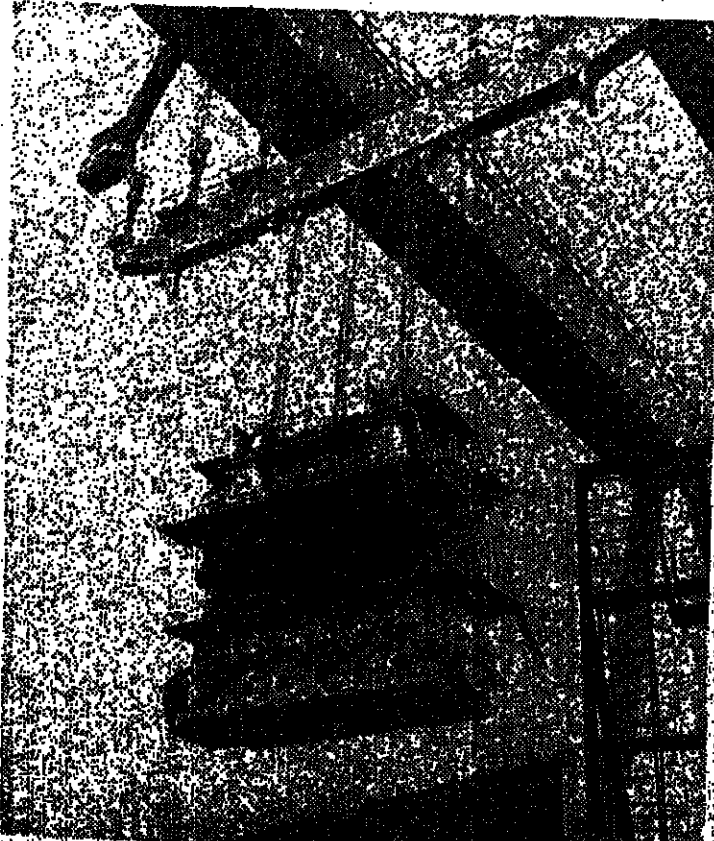
circles, equidistantly, uniformly distributed within the lines of the terrestrial magnetic field. The experiment was carried out in the same temperature and lighting conditions, for two weeks. Every two hours plants were treated with one millilitre of solution in the following manner: in the first box simple water, in the second potassium nitrate solution, in the third potassium nitrate solution irradiated with green light for five seconds, in the fourth the same potassium nitrate solution, this time irradiated with green light for eight seconds (for the explicit purpose of underlying the importance of five seconds as the best irradiation period). Samples were daily gathered in order to measure the length of plants, the fresh mass, the dry mass; many other characteristics were determined as well. The test was repeated four times and the data thus obtained was processed statistically, by means of a computer and several programs.

Potassium nitrate was finally

chosen because potassium residues in many cellular structures and nitrate affects all metabolic processes.

The result: a rhythmic administration of potassium nitrate stopped up the plants' growing process, the five-second-long irradiation with green light notably increasing this acceleration, making plants higher.

In a still unknown manner, through a totally new mechanism, an unexpected yet highly important parameter appeared in the process of absorbing light: time!



HIGH PERFORMANCE SHIPS

- 165,000 dwt bulk cargo carriers and the first river-going "roro" ship.
- Vertical welding without a welder.
- Mechanized design operations.

A real general headquarters in designing sea- and river-going ships, the specialized Galati Institute has brought the number of modernized products to 90 percent. Eng. Lucian Aburel, the director of the Shipping Research and Design Institute offered us some details.

"Among the novelties of 1987, I should mention the 165,000 dwt bulk cargo carrier. For the readers less familiarized with technical details the bulk cargo carrier is a sea-going ship for cargo, having big capacity storage areas and loading-unload-

ing equipment. In the range of river-going ships we had, an absolute first, the 1,500 ton "roro" ship also meant for cargo transport and a tug boat of 3,000 hp carrying the tow of the Romanian merchant fleet on the Danube.

We should complete the image formed by our interrelated Galati Institute on concrete studies and design works for any kind of merchant ships, sea- or river-going, for floating installations, off-shore drilling rigs included.

"In the technology domain," continued the institute's director, "mention should be made of a research theme which has preoccupied us lately and which has been recently concluded — the automatic vertical welding system, a highly efficient modern method. At present, we can deliver designs of any size welding lines and some installations made in the institute's microproduction section. A new preprocessing technology for pipe systems and mounting installations for machine compartments were also designed.

Although formulated this way, for the specialists, strict use of the method seems very simple. It is a well known fact that the pipe systems, which together with the cable and installation network ensure the ship's good functioning, are at the most difficult, most delicate shipping design and execution works. That is why the institute has a section for the mechanization of design operations where one can see what the ship will look like. Eng. Paul Gheorghiu, the one who elaborated the method, told us:

"The new design technology allows the optimization of the design, the precise preplacement, the establishment of the placements, finally leading to the improvement of the work mounting cycle, material saving, a productivity increase of almost 50 percent."

VICTOR POPOVICI

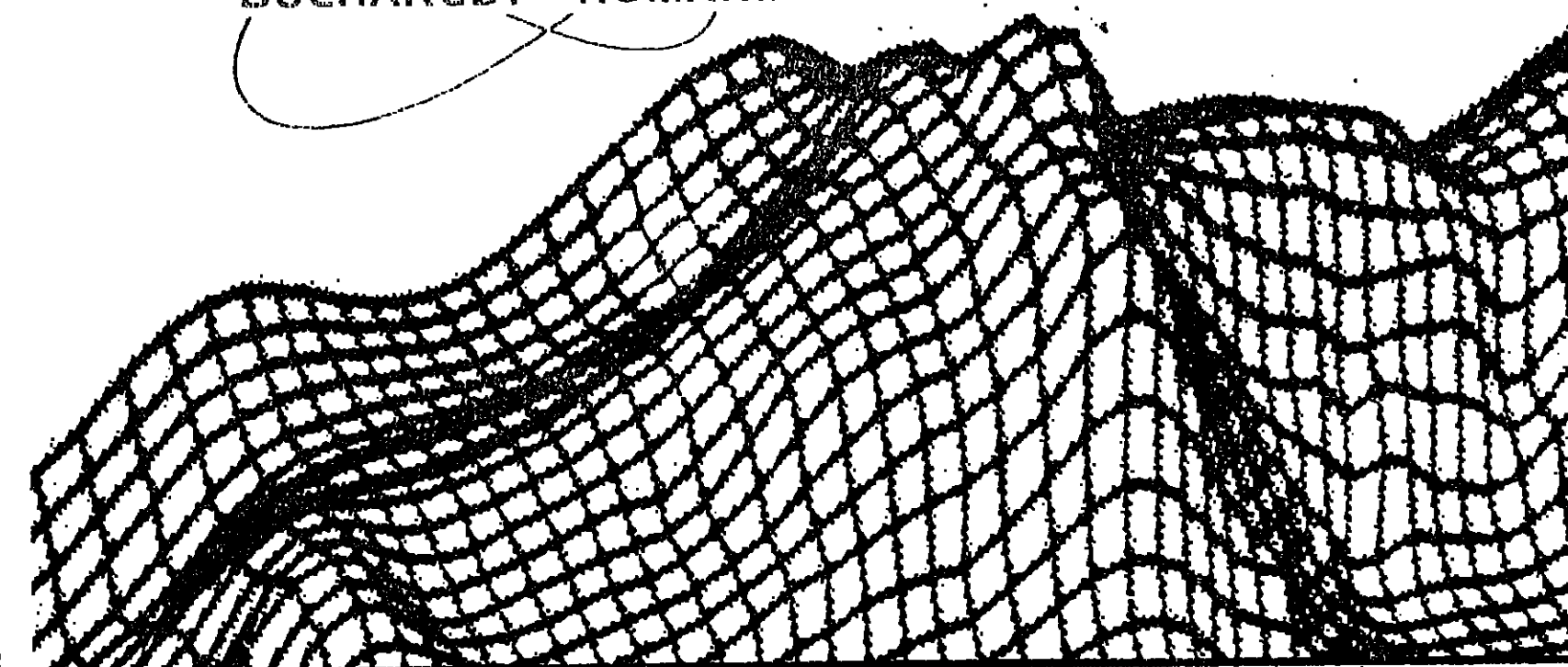
Photo: Views from various stages in the building of ship of the Constanta shipyard, the "Hogari" in country.

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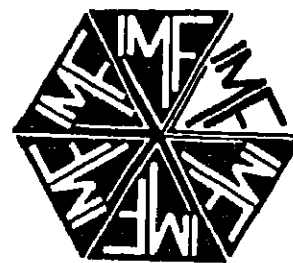
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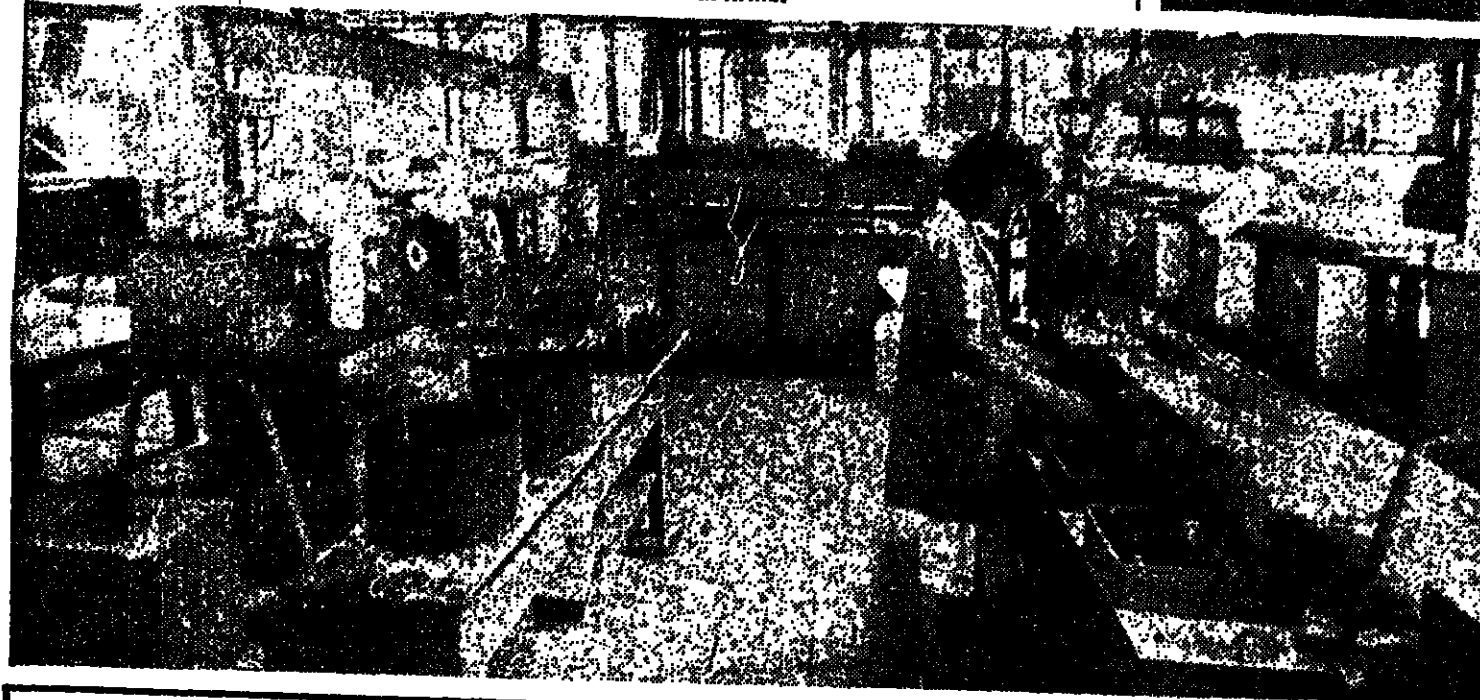
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THE FINE MECHANICS ENTERPRISE



The Fine Mechanics Enterprise of Bucharest, one of the big producers of measuring and gauging fixtures in Romania, offers high-accuracy devices for the measuring of external, internal, circular and flat dimensions, gear, surfaces and angles. Its manufacturing programme includes dial gauges and micrometer calipers with dial indicator, direct-reading and comparison measures

for bore-holes, passmeters and level micrometers, thickness measuring devices, gear pitch error and thickness measuring fixtures, protractors and supports and accessories for these devices. Length measuring devices meet world quality standards and can compete with similar products made by traditional firms.



ensure dimension accuracy, economy of time, giving automatic orders according to the programme.

The vocation for top performances in the twelve enterprises of the CIMF is solidly grounded on the activity of its own Institute of research, design and technological engineering for fine mechanics and tools. A real centre of technical and technological creation, the Institute supplies ideas and solutions to productive departments staffed with high-skilled workers and technicians able to impart the highest quality to each product. The direct relationship between research and production, the continuous flow of information between those who design and those who execute provide the guarantee for the high technical level and accuracy of the measuring and control devices produced by the CIMF enterprises.

The range of products includes 538 distinct families totalling some 22,000 standard sizes. Of them, 80 families of products have been assimilated of late, the share of the new and redesigned products being of over 20 per cent.

In order to achieve its programme, the Fine Mechanics Enterprise adopted and improved the latest technologies specific to each family of products. One of the many possible examples are the diamond wheels with galvanic bond for processing a wide range of materials. Starting from the technology bought from the Winter company of West Germany, the Fine Mechanics Enterprise has achieved almost twice as many families of diamond wheels (from the licence initially contained). Among its performances we could mention the wheels used for cutting integrated circuits, transistors and thyristor plates. The width of the cut is only 0.35 mm, which substantially reduces the waste of expensive materials resulting from cutting. We could also mention the diamond wheels with galvanic bond used for cutting synthetic resins, the wheels for processing sintered metal carbides, etc.

The fruit of the Fine Mechanics Enterprise's industrial creative efforts is the active control devices used directly on machine tools - intelligent devices equipped with electronic logic and control systems.



MEASURING AND CONTROL INSTRUMENTS

MEASURING AND DIMENSIONAL CONTROL INSTRUMENTS

- dial indicators
- bore checking and control instruments
- comparator instruments
- gear measuring instruments
- angle measuring instruments and apparatus
- surface measuring instruments
- supports and accessories for measuring instruments

APPARATUS FOR ACTIVE AND PASSIVE CONTROL BASED ON MODERN PRINCIPLES

- active control instruments for universal and surface grinding machines
- passive control instruments with electric contact and pneumatic transducers
- electronic apparatus for rugosity control

REMEMBER THE

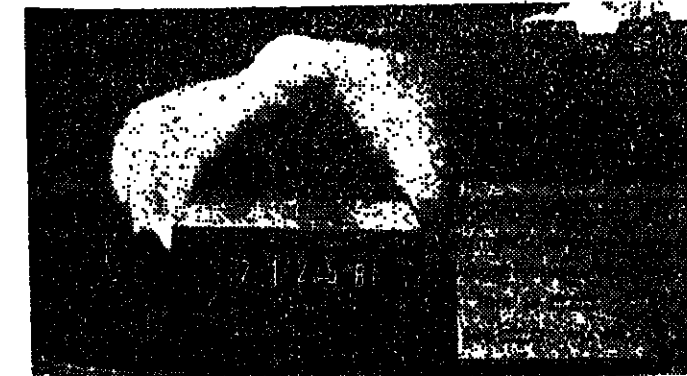
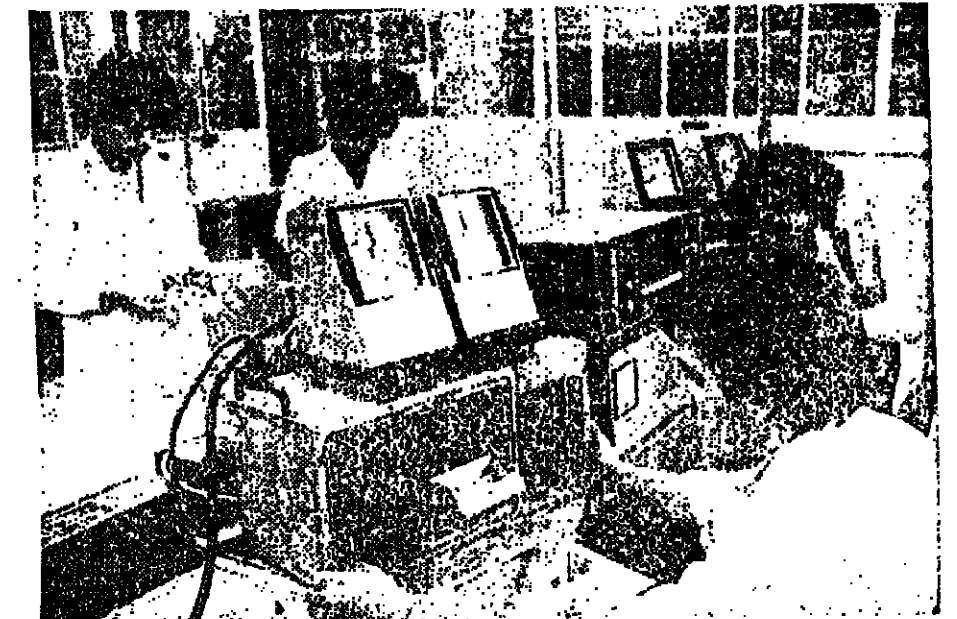


IMF TRADEMARK

IMF is the mark you can see on all products turned out by Intreprinderea de Mecanică Fină (The Fine Mechanics Enterprise) in Bucharest. The fabrication programme of this enterprise which is one of the most modern in Europe includes the following groups of products:

● apparatus and mechanisms of industrial horology ● apparatus for the control of thermotechnical magnitudes ● automation elements for regulating pressure and temperature ● tools, devices and matrices ● products of sintered metal carbides.

Superior accuracy parameters, high technical standard and complexity, a wide range of applicability, endurance, highly efficient constructional elements - these are some of the features boasted by the dimensional control and measuring instruments and apparatus and of the tools bearing the IMF mark. Do not forget: they impart superior functionality, maximum safety of operation, great productivity to your machinery and installations, and a high quality to your products.



HAND TOOLS, DEVICES AND MATRICES

DIAMOND TOOLS

- diamond tools monocrystalline and polycrystalline
- diamond tools for processing grinding stones
- diamond wheels with metal and organic bonds for processing hard and extra-hard materials
- metal-bonded diamond tools for special processing
- diamond drawing dies
- diamond pastes



ON THIS PAGE:

- vertical micrometre with electronic counter
- electronic speedographs for locomotives
- impulse electronic counter for counting machines
- projector - microscope checks

ON THE ADJOINING PAGE:

- View from the galvanic workshop of the diamond tools section
- View from the length measuring and control apparatus section



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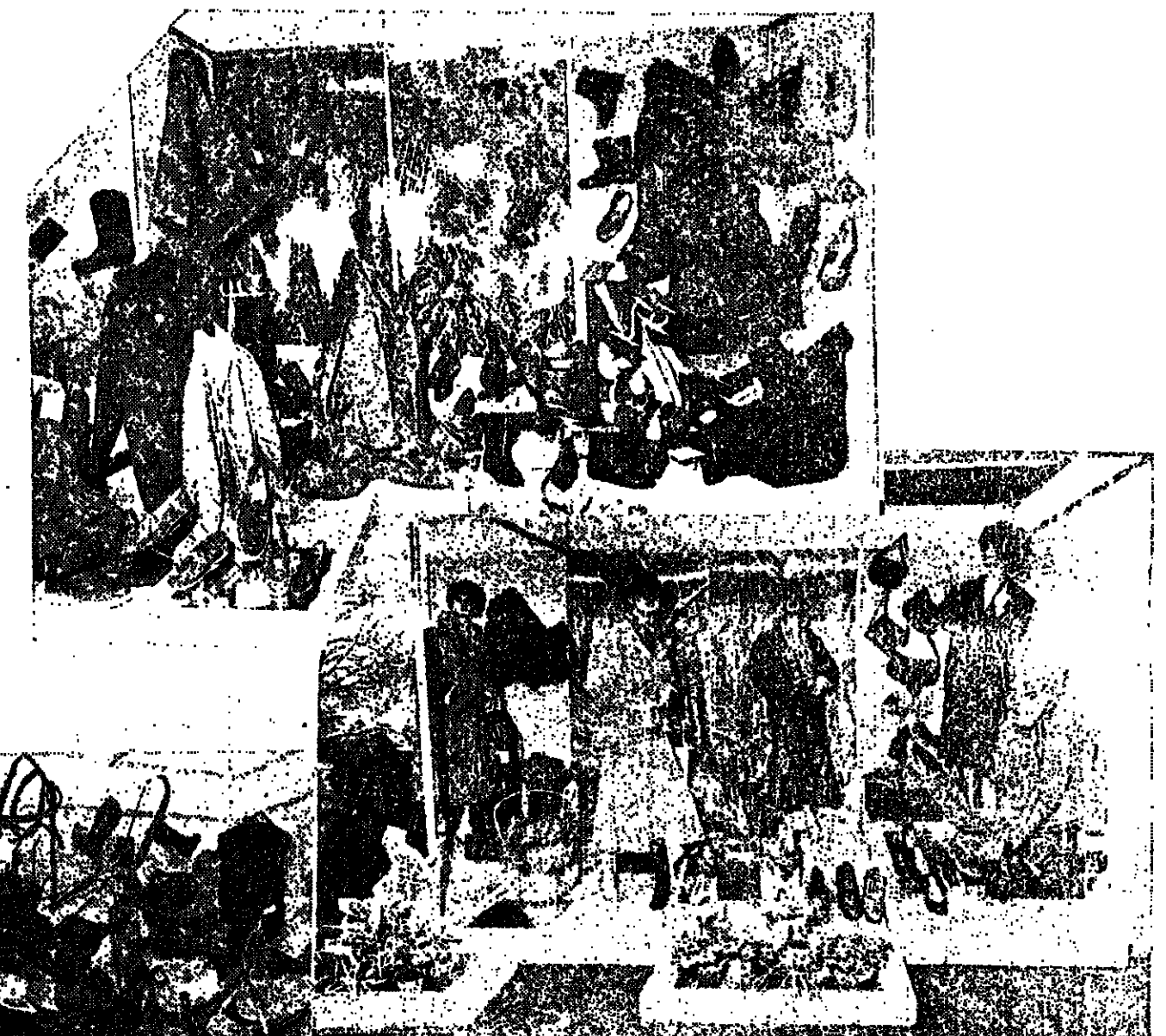
IN SPRING AND AUTUMN

Leather garments — skirts, pants, jackets, coats — gloves, fancy leather goods, shoes for men, women and children.

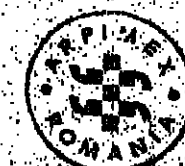
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● AFI three-phase asynchronous motors : output : 5.5-90 kw ; voltage : 380 v ; frequency : 50-60 cycles ; wound rotor with permanently applied brushes ; mounting arrangement : B3 (DIN 42673) or B5 (DIN 42677) ; protection : IP44 (40050)

● ASA explosion-proof motors Ex d.3n.G4 : output : 0.8-90 kw ; voltage : 220-660 v ; frequency : 50-60 cycles ; squirrel cage rotor ; protection : IP54

machines, vacuum cleaners, fans, coffee grinders

● Single-phase electric motors with centrifugal starting relay, 1 or 2 speeds, 0.25 kw/1,500 rpm, 220 v

DC motors : MCG type - for general appliance ; output : 4 kw-280 kw ; MCU type - for machine tools ; output : 3.25 kw-200 kw ; MII motors MCM type - series 802-808 ; output : 3.7 kw-75 kw

DC motors with axial air gap and disk rotor, output : 180 w ; 370 w ; 750 w ; 1,200 w ; 1,500 w ; 2,200 w ; 4,000 w ; 5,500 w

● Welding converters : CS 125 A, CSCA 250 A, CS 315 A,



CS 350 A, CS 3 (350 A), CS 5 (500 A)

● Welding sets with Diesel engine - GST 350 A, GST 500 A

● General sets powered by Diesel engines, stationary or mobile : 4 kva ; 7.5 kva ; 10 kva ; 15 kva ; 20 kva ; 38 kva ; 80 kva ; 125 kva ; 150 kva

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● Medium-frequency converter sets : GEF-AV, 50 kw, 8,000 Hz ; GEF-AV, 56 kw, 8,000 Hz ; GEF-AV, 100 kw, 8,000 Hz ; GEF-AV, 110 kw, 8,000 Hz ; GEF-AV, 125 kw, 2,500 Hz ; GEF-AV, 300 kw, 2,500 Hz ; GEF-AV, 300 kw, 8,000 Hz

● Distribution transformers : rated power : 25-1,600 kva, rated voltage : 6-35 kv

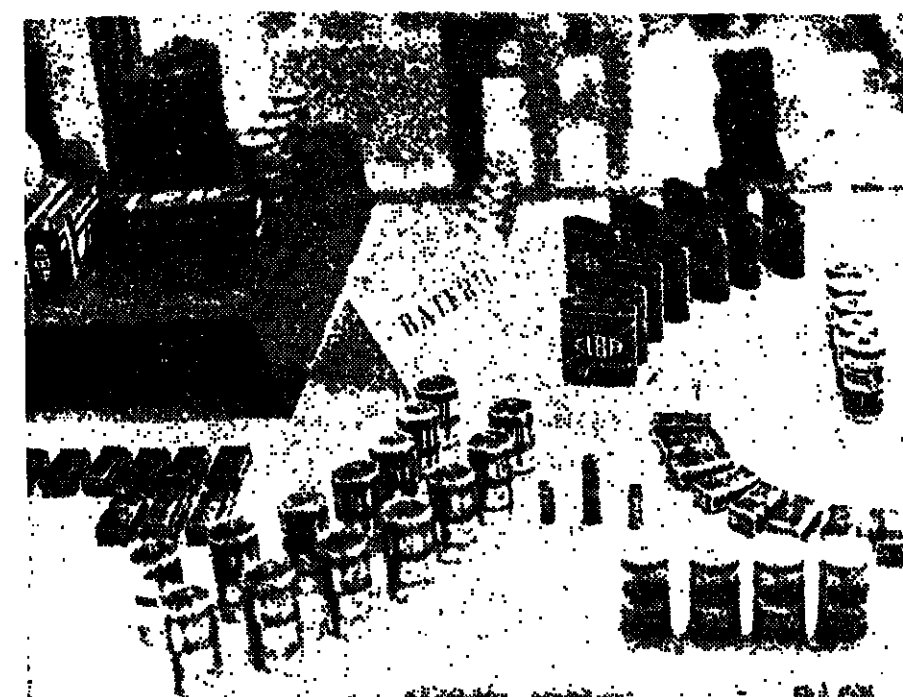
● Power transformers and autotransformers : rated power : 2,000-400,000 kva ; rated voltage : up to 400 kv

● Medium and high-voltage

circuit breakers : a) small oil volume, type IUP, rated voltage : 6-35 kv and 110 kv ; symmetrical breaking capacity : 250-3,000 Mva ; b) small oil volume, type IO (Della Alstom-France licence) ; rated voltage : 6-20 kv ; symmetrical breaking capacity : 250-500 Mva ; c) ditto for the rated voltage of 66, 110, 220 and 400 kv ; d) oil contactor type CAM, 6 kv, 100 a

● Disconnecting switches : a) indoor use (SMI-STI) ; rated voltage up to 35 kv ; rated current up to 6,300 a ; b) outdoor use (SME-STE-STEP) ; rated voltage up to 400 kv ; rated current up to 1,600 a ; c) indoor load break switches, type STS ; rated voltage up to 20 kv ; breaking capacity up to 7 Mva ; d) pantograph type PHAF-1-110/2000

● Instrument transformers : a) current transformers : 1. plastic insulation (types GIS, CDT) ; 2. synthetic resins (type CIR3) ; rated voltage up to 35 kv ; indoor use ; 3. ditto, types CIRTo, CIRTi ; 4. oil type (CESU and CESI) ; rated voltage up to 400 kv, for outdoor use ; b) voltage transformers : 1. plastic resins (type TIRMo, TIRTo) ; rated voltage up to 35 kv single



or double phase build for indoor or outdoor use ; 2. oil types (TEMU-TEBU and TECU) rated voltage up to 400 kv single or double-phase build for outdoor use

● Medium-voltage fuses : rated voltage up to 35 kv ; rated current up to 100 a ; indoor use (type FI) ; outdoor use (type FEI)

● Prefab cells for indoor use for transformer stations up to 20 kv

● Indoor lighting fittings for fluorescent lamps

● Street lighting fittings for mercury lamps

● Lighting fittings for motor vehicles

● Lanterns

● Accumulators

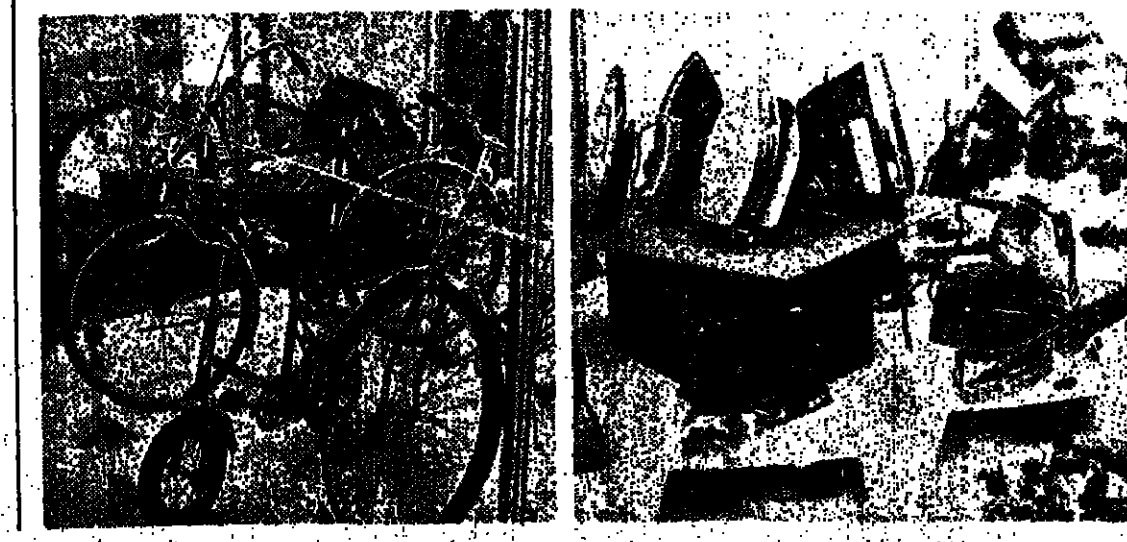
● Electric hand tools

● Electric refrigerators with compressor

● Electric home appliances : washing machines, oil radiators, electric hot plates, flat irons, vacuum cleaners, hair driers, electric coffee grinders, turbine radiators, window fans, table fans, attachments set for MG4 drilling machines, other electric heating appliances, household electric pumps

● Electroinsulating materials : textolit ; sticlotextolit a.o.

● Electric cables and conductors : Aluminium conductors for overhead lines ; Steel-core aluminium conductors ; Rubber-insulated-sheathed flexible cables, type NLI, NMH, NSH ; Copper and aluminium PVC insulated conductors according to DIN-B5-NF-VDE ; Telephone cables ; Copper and aluminium power cables, armoured and non-armoured, of 1.6 and 10 kv ; Insula-



tion : PVC, polyethylene or paper (mass-impregnated and mass-impregnated-non-drawing)

● Equipment for electrochemical industry manufactured in one piece or small series

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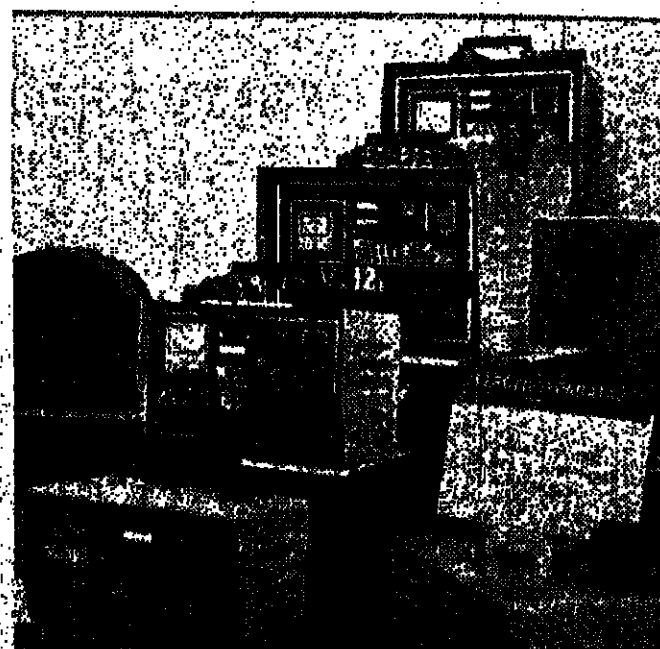
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(40050) for operation in explosive ambience

● Three-phase asynchronous motors of large output : output : 110-1,000 kw ; frequency : 50-60 cycles ; squirrel cage rotor ; low voltage : 220-660 v - MIB & MAB ; high voltage 3.3-6 kv - MIB & MAB ; MIB & MAB ; wound rotor ; low voltage : 220-660 v - MIP & MUR ; high voltage : 3.3-6 kv - MIP & MUR ; MUF & MEP ; mounting arrangement : B3 (DIN 42673) and B5 (DIN 42677) ; protection : IP23 or IP 44 (DIN 40050)

● TAM three-phase asynchronous motors : output : 0.25-7.5 kw ; voltage : 220-500 v ; frequency : 50-60 cycles ; squirrel cage rotor ; mounting arrangement : B3 (DIN 42673), B5 (DIN 42677) and B14 aluminium casing

● Single-phase electric free-running power motors for washing machines : 2/12 poles, 2/14 poles ; refrigerators ; sewing



● Reactance coils, type BR

● Winding machines for transformer coils

● Power capacitors : a) mineral oil (type CU) ; rated voltage : 0.380-0.500 kv ; rated power : 10-15 kw ; three phase build indoor mounting ; b) chlorinated oil, type CS ; rated voltage : 0.380-0.500 kv ; rated power : 15-30 kw ; three-phase build ; indoor mounting

● Low-voltage gears for industrial purpose and housing installations (contactors, relays, circuit breakers, push buttons, normal fuses, transformers, high rupture capacity low-voltage fuses, switches, sockets, etc.)

● Lites

● Dry cells and electric batteries

● Lighting sources : high pressure mercury vapour lamps, auto bulbs, fluorescent lamps, standard incandescent lamps, ballasts for mercury and fluorescent lamps, starters



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PROFESSOR AND RESEARCHER

"Here, we are interested in... poisons". Such an introduction where the humorous note does not exclude the serious aspect of the statement, is quite promising. From the very beginning we understood why the everyday audience of our interlocutor — fourth and fifth year students at the Medicine and Pharmacy Faculty in Iasi are so thrilled. The courses of university professor Marilau Cotrau, 196, are breathtaking, because the professor knows how to combine his toxicology knowledge with subtle doses of information on the "peach" course (poisoning with hydrocyanic acid contained by peach stones) on poison hemlock also called the "Greek gullotine", on belladonna, or arsenic and also with stories of famous trials intended centuries ago.

But the atmosphere reminding of detective stories is only a part of professor Marilau Cotrau's courses. The head of the Toxicology Lab teaches students how to consider and handle pharmaceutical drugs and make them useful to people. The student's instruction includes a rigorous guidance for the identification of toxic substances in industrial and agricultural environments, in household substances or those which are some-

times the students' collaboration. The professor and his disciples succeeded in imposing precise measures of reducing chemical noxae — for example at the Synthetico Fibre and Yarn Plant in Iasi. In the oil town of Moldesti the conclusions and recommendations, after rigorous researches, of the team from the Medicine and Pharmacy Faculty led to the reduction of pollution in the Tasiu river. The students were attracted, among others by preparing an ointment useful in treating chemical burns or similar wounds. Labour medicine and dermatology often benefit by the creative contribution of the toxicology lab from the Iasi faculty.

Several years ago, Junimea Publishing House brought out a volume called 1001 Thoughts for Moderation signed by Marilau Cotrau. The book contains a convincing plea for a rational life of which are not excluded drugs, alcohol, food etc. abuses. In fact moderation in its various forms of harmonization with nature's laws is the profession of creed of the specialist from the academic town located in the north of the country. A creed he passes over to generations of students, not only with the authority of his countless titles (secretary of the Association of Scientists and of the Subcommission of Fighting Environmental Pollution — the last branches of the Romanian Academy, corresponding member of the National Academy of Pharmacy in Paris, and member of numerous international European and Balkan societies of toxicology and the history of pharmacy, etc.) and also of his endless passion in his quality of teacher and researcher.

V. CIORBAGIU



The imposing building of the Bucharest Municipal Hospital

A PLANT OF GOOD HEALTH

The clinical hospital of Bucharest, municipality, built on the bank of the Dimbovitza river, in one of the oldest parks of the capital and in the close vicinity of the Medicine-Pharmaceutical Institute is a 14-storeyed therapeutic colossus covering 57,000 sq.m. Designed by a group of talented architects (Constantin Măgulescu, Marcel Hornstein, Mircea Săndulescu and Sofia Ungureanu) who collaborated with many specialists in hospital technology, and opened in 1978, therefore ten years ago, the hospital was considered one of the largest complex units of its kind in the world, serving as a model

for similar constructions erected abroad.

The clinical hospital of Bucharest municipality sited not only near the Medicine-Pharmaceutical Institute — which allowed for the transformation into a real university campus — but also in close proximity to the Public Hygiene and Health Institute, the Victor Babeş and Ion Cantacuzino medical research institutes, the faculty of stomatology, the Panduri urological hospital and a otorhinolaryngology clinic, makes up practically a huge health plant. With 1,531 beds distributed to 11 clinics of internal medicine, surgery, obstetrics and gynaecology, ophthalmology and orthopaedics, the best hospital in Bucharest has also an ultramodern radiology department, a vast functional explorations section performing electrocardiograms, electroencephalograms, respiratory functional tests, endoscopies, ophthalmological investigations, digestive explorations, angiographies, radiotelegrams, etc. The adjoining compartments comprise central departments of sterilization, rehabilitation, anatomopathology, a large laboratory for hematology, biochemical, bacteriological, virological tests, special rehabilitation rooms with basins, as well as a prosthetics department. Besides, a polyclinic furnished with all medical instruments was set up at the ground floor. At the top floor there is an immense terrace which offers besides a splendid view, optimum conditions for recuperation. In the huge therapeutic complex patients benefit from the high competence of renowned specialists of Romanian medical school such as professor Leonida Ghiculescu, professor Alexandru Prigoc, prof. Traian Bobtescu, prof. Alexandru Stamatoiu, prof. Barbu Romo, prof. Emanuel Popescu, while the radiology department is headed by professor Paul Niculescu.

The construction of this hospital which costed various and contradictory solutions, as far as the design stage (double were raised concerning the need for modernization of the clinical complex) and the execution stage (overcrowding, the fact that the quality of the construction was not always in line with the requirements of the modern hospital) proved a happy result due to an irreplaceable organization along the way of

medical sections and to a perfect operation of the whole the apical organism, humanizing the medical services not only through a harmonized, synchronized efficiency of the departments, but also through a serene atmosphere permeating to the architectural style and the landscape. Thus, the clinical hospital of Bucharest municipality, reserved one of the landmarks of the national school of medicine, a remarkable achievement of the Romanian state, an evidence of its permanent concern shown for the people's health.

DUMLA FADIAN

SAVINGS

Furnace No. 5 of Galati, the second biggest in this country's iron-and-steel industry, has been updated by the specialists of the iron-and-steel construction, assembly and repairs enterprise in the Galati industrial area. Ductility of the technical assistance granted by the Institute of research and design for metal casting in town, the builders of iron-and-steel installations managed to enhance the economic efficiency of the mentioned unit by five million lei, while reducing the amount of coke by 1.5 kg for every ton of pig iron. This is even more significant as the reliability of the repaired and modernized furnace has grown considerably.

The oil equipment builders of the 1 Mai Enterprise of Ploiesti have turned out the first batch of drilling bits for a 311.4 mm diameter. To this effect, special technological solutions, superior technologies and proving elements were used for the first time in this country. First tested at the 11000 ft depth in Trahova, the new bits greatly surpassed the efficiency of those used previously. The Journal of Petroleum Technology, the operation time of the bottom of the well by 30 hours longer than that of the old bits, and the cost of the bit by 10%.



At the laboratory of the Bucharest Municipal Hospital

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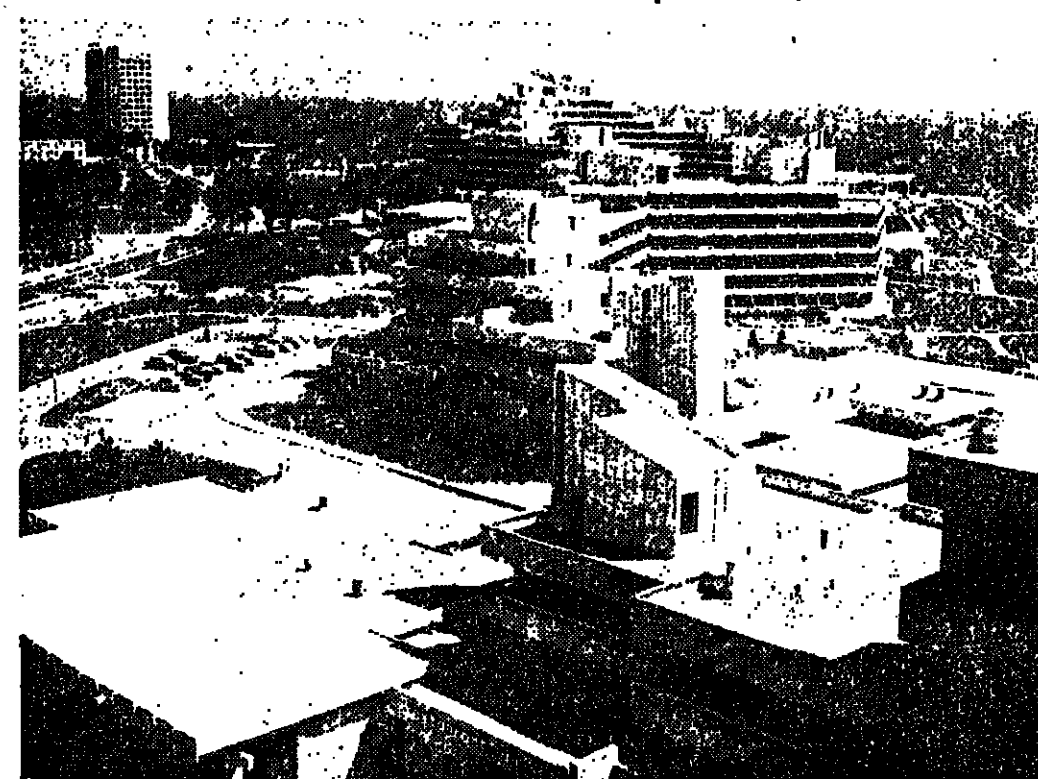
During any season the Romanian Black Sea coast is a source of health, its dowry consisting of:

- sapropelic mud
- lakes rich in mineral salts
- sea water
- mezothermal mineral water springs
- balneal cure centres of international renown
- recreation means of great diversity

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- very good accommodation and excellent food in elegant and comfortable hotels and restaurants, highly efficient natural factors for balneal treatment, balneal sanatoria with sophisticated medical equipment, multiple possibilities for organizing trips to the surroundings of the Romanian littoral as well as to the Bulgarian Black Sea coast.

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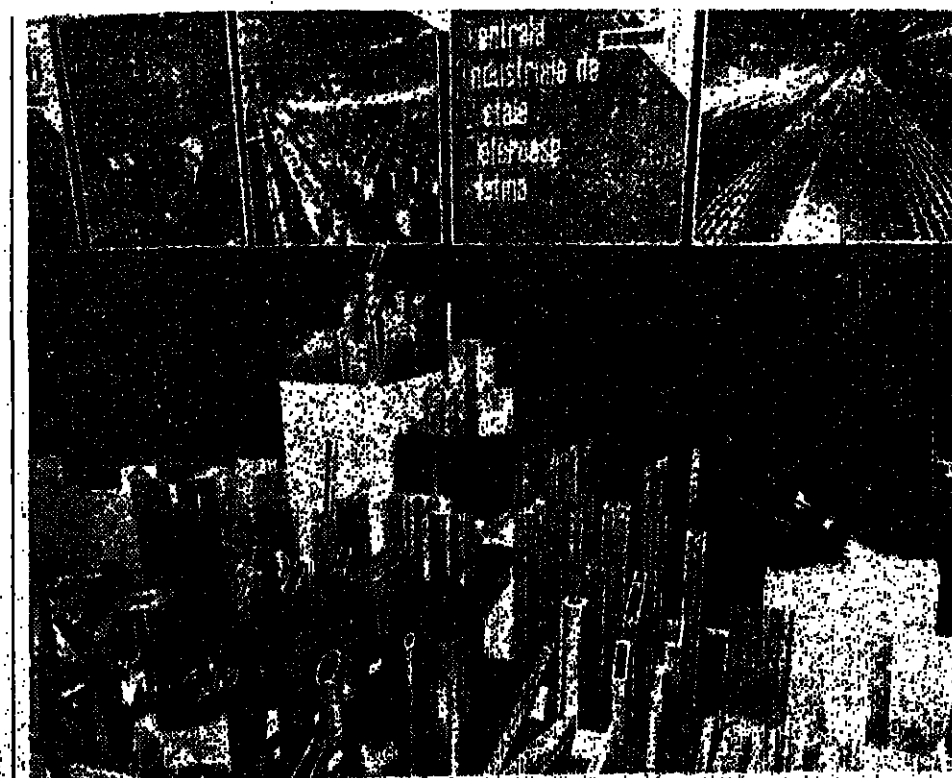
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